



Republic of Mozambique
Ministry of Fisheries

Assistance to the Fisheries Sector of Mozambique

**Document of the Programme
co-financed by Norway and Iceland**

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Abbreviations

ADB	African Development Bank
ACP	Africa, Caribbean and Pacific
BADEA	Arab Bank for the Economic Development in Africa
BID	Islamic Development Bank
CCG	Co-management committee
CCP	Community Fisheries Council
CIDA	Canadian International Development Agency
DANIDA	Danish International Development Agency
DFID	Department for International Development (UK)
DNAP	National Directorate of Fisheries Administration
DNEP	National Directorate of Fisheries Economics
DoF	Directorate of Fisheries, Norway
DPP	Provincial Directorate of Fisheries, Mozambique
DRH	Directorate of Human Resources
EC	European Commission
EEZ	Exclusive Economic Zone
EP	Fisheries School
EU	European Union
FAO	United Nations Organisation for Food and Agriculture
FFP	Fisheries Development Fund
GEF	Global Environment Facility
ICEIDA	Icelandic International Development Agency
IDPPE	National Institute for the Development of Small Scale Fisheries
IFAD	International Fund for Agricultural Development
IMR	Institute of Marine Research, Norway
INE	National Institute of Statistics
IIP	National Institute of Fisheries Research
INIP	National Institute of Fish Inspection
IUU	Illegal, Unregulated and Unreported Fishing
JICA	Japan International Cooperation Agency
mn	Nautical mile, equivalent to 1.852 m
MONAP	Mozambique Nordic Agricultural Programme
MP or MF	Ministry of Fisheries
MCS	Monitoring, Control and Surveillance
NEPAD	New Partnership for Africa's Development
NORAD	Norwegian Agency for Development Cooperation
OFCF	Overseas Fishery Cooperation Foundation (Japan)
PA	Artisanal Fisheries
PARPA	Action Plan for the Reduction of Absolute Poverty
PCR	Savings and Rotating Credit
PDP	Fisheries Master Plan
PDSP	Fisheries Development Sector Plan
PES	Economic and Social Plan
PESPA	Strategic Plan for the Artisanal Fisheries Sub-sector
PPABAS	Sofala Bank Artisanal Fisheries Project
PPAN	Nampula Artisanal Fisheries Project
PPACDNN	Cabo Delgado and Northern Nampula Artisanal Fisheries Project
SADC	Southern African Development Community
SPP	Provincial Fisheries Service
UN	United Nations
UNCLOS	United Nations Conference on the Law of the Sea
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USD	United States Dollar
VMS	Vessel Monitoring System

0. Executive Summary

1. The Mozambican *maritime coast* extends for about 2,700 km, and it may be divided into three distinct sections in which fishing activities are also different. *In land* there are important bodies of water and about 25 large, permanently flowing rivers, a number of coastal and inland lakes and flood plains, which provide fish for the local population during a great deal of the year.

2. The differing physical and ecological conditions in the three types of coastline condition the fauna and flora present and the fishing operations undertaken: at the *river mouth, estuaries and adjacent areas*, small pelagic and demersal fish and crustaceans of estuarine waters are dominant; on the *coastal islands* fishing activities are concentrated where the target species are demersal fish of rocky beds and some large pelagic fish, but also small pelagic fish and coastal lobsters; on the *coastal rocky sea beds* are found demersal fish, cephalopods, molluscs, small pelagic fish, tuna species and rock lobsters; in *banks and oceanic peaks* there are concentrations of tuna and, in smaller amounts, of demersal species with commercial value; in the *Sofala Bank*, in the centre of the country, the largest proportion of the country's marine resources are found, namely estuarine and coastal resources, such as small demersal and pelagic fish, mangrove crabs and penaeidean shrimps; and in the *Boa Paz Bank* there are resources of small pelagic fish, demersal fish, cephalopods and deep water crustaceans, such as lobster, shrimp, langoustine and crabs.

3. Two large inland bodies of water also provide important fishery resources, and examples of the same families are also found in smaller bodies of water, rivers and flood plains: *Lake Niassa*, in which tilapia, utaca, mbuna, kampango and catfish are found; and the *Cahora Bassa* reservoir, where kapenta, tiger-fish, tchenga, barbells, catfish and tilapias are also found.

4. It is estimated that the fisheries currently contributes with at least 3% to Mozambique's GDP. According to estimates made on the basis of results that are only partly known, the country's marine catch is currently around 130,000 tonnes, of which about 91% comes from artisanal fishing, 2% from semi-industrial and 7% from industrial fishing. However, in terms of value, the industrial catch, consisting almost exclusively of crustaceans and high value demersal fish species intended for export, represents slightly more than half the total value (about 52%) and artisanal fishing not more than 42%, with the remaining 6% coming from semi-industrial fishing. There are no estimates for the inland catches.

5. In Mozambique, *aquaculture* was, until the 1990s, limited to inland waters, associated with agricultural activities. This situation changed in the 1990s, with the emergence of the first commercial undertakings.

6. The Fisheries administration system consists of three integrated sub-systems, namely the policy making (Ministry of Fisheries), fisheries management (IIP, DNAP and INIP), promotion of development (IDPPE, INAQUA, FFP and EP) and production and services exercised by the state or with state participation (Emopesca). The Fisheries administration has a local presence, in provinces and districts. At levels lower than the district (administrative post and locality) any powers in terms of fisheries administration are exercised by delegation of the district administrator.

7. The fisheries development policy in force finds its reference points in the series of policy instruments and national strategies which express much of the national effort to develop the country, amongst which stand out the *Government Five Year Programme for*

2005-09 and the *Action Plan for the Reduction of Absolute Poverty (PARPA II)* for 2006-09 and the *Plan of Action for Food Production (PARPA 2008-2011)*.

8. Within the fisheries sector, the following instruments for economic and social development stand out the *Fisheries Master Plan 1995-2005*¹, the *Strategic Plan for the Artisanal Fisheries Sub-sector (PESPA) 2007-2011*, the *Strategy for Aquaculture Development in Mozambique* and the *Small Scale Aquaculture Development Plan 2009-13*, the *Fisheries Research Development Strategy (2008-2012)* and the *MCS Policy and Implementation Strategy* and the *Sofala Bank Shrimp Fisheries Management Plan* and the *Line Fisheries Management Plan*, under analysis. The *Economic and Social Plan 2009 (PES)* is the annual instrument for implementing the government's Five Year Programme and the PARPA II and includes a component for the fisheries sector.

9. The national efforts undertaken with international assistance to develop the fisheries sector have currently a series of 15 projects, with a total value of around 83.5 million USD.

10. As for the bilateral cooperation between Mozambique and Norway, during the 1980s and early 1990s, the cooperation between these two countries in fisheries developed gradually, on a relatively small scale, covering successively the areas of research, planning and management of marine resources, with an interest often focused on the resources with the greatest economic importance. Only as from 2003 did this bilateral cooperation take on a larger scale though the definition of a programme of assistance to the sector which extended from 2005 to early 2009.

11. The cooperation between Iceland and Mozambique started in the mid-eighties. It was first oriented to the creation of the national system of fish inspection. As from 2000, the area of cooperation was expanded and covered the research in inland waters, *development of fishery training and educational programs* and the development of aquaculture.

12. The problems to be solved in the Mozambican fisheries sector correspond basically to those which the development efforts described are trying to overcome. It is considered that the focal question lies in the circumstance that *the fisheries sector is not contributing as much as it potentially could to the economic and social development of the country*.

13. Taking into account the prevailing problems and the initial debates held, the immediate objective and the priorities of the new Master Plan is expressed around the following formulation:

Strengthened contribution of the sector in improving food and nutritional security in fisheries produce for the population improved living conditions for the communities of artisanal fishermen, increased contribution of the industrial fisheries to achieving the national poverty reduction objective, increased net contribution of the sector to the country's balance of payments, in a framework of a more skilled Fisheries public administration and sustainability of fisheries resources and of environmental equilibrium.

14. This challenge cannot be met exclusively with national resources. Norwegian cooperation has followed a logical line with a gradual expansion to areas which can only produce results in the long term, which presupposes continuity.

15. Recently, the Fisheries Sector Assistance Programme sponsored by Norway in the period 2005-08, despite achieving some successes, faced some constraints which, if they are not solved, can compromise the efficiency and effectiveness of implementing the new

¹ A Fisheries Master Plan covering the period 2010-19 is presently under preparation. A final draft is expected to be available by mid-2009.

Programme. Effectively, there is a need to strengthen monitoring of the Programme; to separate between the policy function and the fisheries administration function, a decision which has already been taken by the Ministry of Fisheries; and to revise the current statistical plan and to strengthen the capacity to hold studies and formulate policies and strategies in the Ministry of Fisheries.

16. Taking into account the adjustment that the new Master Plan will bring to the economic and social development objectives of the Fisheries, the current assistance programme is oriented, as before, to the institutional development of the Fisheries administration, but seeking to respond to new priorities of the next PDP. Therefore, the *immediate objective* of the Programme, although not very different from that adopted in the previous phase, is formulated as follows:

The Fisheries administration with capacity and competence in the area of promoting the development and management of the fisheries and of aquaculture, in order to achieve sustainable and viable use of aquatic resources on the part of private operators and communities of fishermen and of fish farmers directly dependent on fishing and on aquaculture.

The *target group at immediate objective level* consists of the technical and managerial staff of the Fisheries public administration. However, it is expected that the programme benefits the small producers of the artisanal fishing and small scale aquaculture sub sectors and the Mozambique population, particularly through an increase of fish consumption in the most disadvantageous households.

17. The Programme is structured according to the functional arrangement of the public Fisheries administration, that is, according to the policy, fisheries management and development promotion components. For each of these components an objective is defined and a coordinating entity identified. For their part, the components "Fisheries management" and "Promotion of development of fisheries produces for domestic consumption" are structured by sub-components identified by the institutions belonging to the functional components of the fisheries administration system. Each of these institutions is responsible for programme implementation.

18. The objective of the *Ministry of Fisheries* component is:

The Ministry of Fisheries with greater capacity to formulate policies and strategies, make proposals for fisheries legislation, formulate plans and monitor them, as well as coordinate their implementation internally and with other economic and social sectors.

19. The objective of the *Fisheries Management component* is the following, attained through the sub-components of Fisheries research, Fisheries administration and Fish inspection:

The Fisheries administration with greater capacity to assess the state of exploitation of the resources and of the fisheries, to make recommendations, to convert them into management measures and to impose compliance with the fisheries laws and regulations in general.

20. The objective of the component *Development of the production of fisheries produce intended for the consumption of the population* is the following, attained through the sub-components of Artisanal fishing and Aquaculture:

The Fisheries administration with greater capacity to promote the development of food production intended for domestic consumption (commercial artisanal fishing, use of the shrimp by-catch and small scale aquaculture).

21. The objective of the *Cross-cutting Questions component* is:

Greater capacity in the Fisheries sector to deal with the spread of HIV/AIDS, to apply good governance practices, and to contribute towards greater gender equity and environmental sustainability.

22. The total *resources* envisaged for the Fisheries Sector Assistance Programme co-financed by Norway and ICEIDA are estimated at 26.5 million USD of which 22.5 million USD are financed by Norway and 4.32 million USD by ICEIDA. The resources to be funded by the Mozambican government have still to be determined. However, it is expected that the value identified before the present Programme was formulated (around 1.2 million USD) will be increased in order to cover the phasing out from the Programme of some of activities in the period (vd. paragraph 25).

23. The *external factors at the level of the immediate objective* of the Programme are stability in the international market, namely with regard to the prices of fisheries produce and of oil; greater importance granted by the Government to the role of fisheries in reducing rural poverty; continued rehabilitation in general of social and economic infrastructures, covering the fishing districts; measures to stabilise the trained staff and stability in the system of granting funds for the running costs of the Fisheries administration.

24. The *external factors identified as capable of influencing the sustainability* of the Programme are the continuation of international cooperation to develop the sector without sudden alterations; gradual integration of the actions generated by development aid and fisheries management into the state budget for the sector; continued general economic growth and social and economic stability and stability of the staff trained.

25. With the purpose of increasing the likelihood that its effects will be sustainable beyond the duration of the programme, the activities included that are repeated during the years of cooperation have been subject to a declining percentage of expenditure supported by the donors. This scaling has varied in general from 100% of the costs supported by the programme budget in Year 1 to 40% supported in Year 4.

26. The organisation and management arrangements of the Programme in the previous phase have been essentially maintained in the new phase, although with some adjustments introduced on the basis of the experience gathered. The figures of general coordinator and manager are maintained as previously established. However, Programme monitoring is strengthened with the figure of component coordinator and with a larger number of monitoring meetings, both at component and at overall Programme levels (steering commission and joint meeting Embassy of Norway/Iceland/Ministry of Fisheries).

27. The Programme of Assistance to the Fisheries Sector envisages that, in theory, the new intermediary review (or the final assessment) will only be held in 2013. However, it should be taken into consideration that 2009 coincides with the end of the present administration in Mozambique and 2010 with the beginning of the next; faced with the evolution of the international conjuncture, characterised by a crisis, the contours of which are not yet fully known, but which is expected to worsen and have a negative influence on developing countries, these facts could form grounds for revising the programme, if adjustments in Norwegian, Icelandic and Mozambican government policies mean that the objectives of the programme are no longer relevant.

1. Context

1.1 The Fisheries Sector

The maritime and inland fishing waters

The *maritime coast* extends for about 2,700 km. Three distinct sections may be identified, in which the fishing activities are also different:

- The *northern coast*, about 770 km long, with a rocky and coral-bearing sea bed, and a narrow continental shelf, and sheltered islands and bays, covering Cabo Delgado province and the northern and central districts of Nampula province;
- The *central coast*, about 980 km long, facing the Sofala bank, split by the numerous rivers and channels fringed with mangrove forests that provide sheltered estuarine areas, and sandy coasts, sometimes protected by coastal islands, extending from the two most southerly districts of Nampula province to Govuro district, in Inhambane province; and
- The *southern coast*, about 950 km long, facing in its central area the Boa Paz bank, extends from Govuro district, in Inhambane province, to the extreme south of Maputo province, where there are beaches in some areas, with sea beds sown with coral and rocks, with some sheltered bays, exposed to strong southerly winds, particularly from Inhambane area to the far south of the territory.

Within the *mainland* part of the territory, there are two important inland masses of water – Lake Niassa, shared with Tanzania and Malawi, and the Cahora Bassa dam lake. Spread across much of the territory there are about twenty large rivers, with permanent flows, a large number of coastal and inland lagoons, and flood plains, which provide fish for the local population for much of the year. Among these rivers, the Zambezi stands out because of the volume of water it releases into the Indian Ocean, on the central coast, which, it is estimated, accounts for two thirds of the discharges of fresh water from Mozambican rivers.

Fishing resources

The differing physical and ecological conditions in the three types of coast condition the fauna and flora present there, and the fishing operations undertaken. Some places, because of their specific geographical conditions, provide a concentration of specific marine species, and the following may be stressed:

- *The mouths of the most important rivers* and the bays and marine areas adjacent to them are, as a rule, important fishing areas. In them, there predominate small pelagic and demersal fish and crustaceans of estuarine and coastal waters. There stand out the outlets of the Rovuma river, the Zambezi and its delta, the Pungué and the bay of Sofala, the Save river, the bays of Vilanculo and Inhambane, the Limpopo river and the estuary and bay of Maputo;
- The *islands located near the coast* of Cabo Delgado, Nampula, Zambezia and Inhambane are other areas where fishing activities are concentrated, normally targeting rocky seabed demersal species and some large pelagic fish, but also small pelagic fish and coastal lobsters.
- The *rocky coastal seabeds* along the coast of Cabo Delgado, and the north and centre of Nampula province, and of Inhambane, where there are resources of demersal fish, cephalopods, molluscs, small pelagic fish, tuna species rock lobsters and seaweeds with commercial value.

- Some *banks and ocean peaks* at varying distances from the coast provide areas of concentration of tuna species and, in lesser quantities, of demersal species with a high commercial value. Of all these, there stand out the São Lázaro Bank on the Cabo Delgado coast and the Almirante Leite Bank in Maputo;
- The *Sofala Bank*, extending over about 45,000 km² up to the depth of 200 m (that is, 64% of the Mozambican continental shelf) between parallels 15° 38' and 21°30' South, with a maximum breadth of 60 nautical miles in front of the Pungué river in Sofala province. In it is found the largest proportion of the country's marine resources, formed by estuaries and coastal resources, particularly small demersal fish, pelagic fish, mangrove crabs and penaeidean shrimps;
- The *Boa Paz Bank*, between the coordinates 24° 30' South and 35° 30' East to 26° 30' South and 33° 00' East, where are located resources of small pelagic fish, demersal fish, cephalopods and deep water crustaceans, namely spiny lobsters, shrimp, langoustine and crabs.

The two large inland bodies of water also provide important fishery resources. Examples of the same families are also found in smaller bodies of water, rivers and flood plains:

- *Lake Niassa*, with a total surface area of 30,800 km², of which 6,400 km² is on the Mozambican side, has an estimated potential of about 7-8,000 tonnes. The major groups of commercially important species fall into three families: *Cilichlidae* (tilapias, utaca, and mbuna), *Bagridae* (catfish, kampango) and *Clariidae* (catfish).
- *Cahora Bassa Lake*, with an area of about 2,700 km², has an estimated potential of about 16,000 tonnes, of which about 10,000 tonnes are kapenta (*Limnothrissa miodon*). The other most common species belong to five families: *Characidae* (tiger fish), *Disctichodontae* (tchenga), *Cyprinidae* (barbus), *Clariidae* (catfish) and *Cichlidae* (tilapias).

Fishing activities

It is estimated that the Fisheries sector currently contributes at least 3% to the GDP.

According to estimates made on the basis of results that are only partly known, the country's marine catch is currently around 130,000 tonnes, of which about 91% comes from artisanal fisheries, 2% from semi-industrial and 7% from industrial fisheries. However, in terms of value, the industrial catch, consisting almost exclusively of crustaceans intended for export, represents slightly more than half the total value (about 52%) and artisanal fisheries not more than 42%, with the remaining 6% coming from semi-industrial fisheries.

The 2007 census on *marine artisanal fishing* estimated at around 334,000 the number of professionals and other people who depend directly or indirectly on artisanal fishing, distributed across 1,217 fishing centres. Of these:

- 280.000 are artisanal fishermen, of whom 41% were using boats of various types. 43% did not own or use any kind of boat. Among the latter, about half are collectors, divers or exercise other activities close to fishing. In addition to these fishermen, there are processors, artisanal naval carpenters, net-makers, naval mechanics and sellers of fishing gear and artefacts;
- artisanal fishermen were using about 42,300 items of fishing gear, of which 18% were beach seining nets, 23% hand lines and 42% surface gill nets, together accounting for almost 83% of the gear counted;
- about 39,400 boats were used in artisanal fishing activities, of which about 77% were canoes made from tree trunks, 9% Moma type canoes, 6% rafts and 6% skiffs, together

accounting for 97% of the total artisanal fleet. It is estimated that the percentage of motorised boats had not increased significantly since the previous census in 2002 (3%);

- about 1,100 community based organisations were operating in the sphere of artisanal fishing, covering 315 fishermen's associations, 353 savings and rotating credit groups (PCRs) and 415 other forms of community organisation, dedicated to the participatory management of fisheries (CCPs) and the building of schools, health posts and sources of clean drinking water;
- almost 2,500 economic and social infrastructures have been set up and are functioning linked to fishermen's communities, such as fish markets, water sources, schools and health units, mainly as a result of integrated artisanal fisheries development programmes,;
- in some maritime coastal cities, alongside subsistence artisanal fishermen, there are forms of artisanal fishing that use motorised boats, with waged workers, directed at the urban and inland markets, and sometimes the great agricultural consumers;

The fishermen's communities consist of permanent villages, mostly with great shortcomings in terms of their social and economic infrastructures. Depending on the region where they are located, these communities are highly diverse in their traditions and social organisation, used techniques, and the levels of household income. Artisanal fishing is of great importance in the country's food security, not only in the coastal districts, where two thirds of the country's population lives, but also in the interior regions, where, apart from fresh water fish, fisheries produce caught at sea is sent after it has been dried or smoked, with or without salt.

In 2007, the *industrial fishing fleet* had 123 vessels distributed among the Sofala Bank shrimp trawling fisheries (92), deep water shrimp trawling (27), and line fishing on rocky beds (4), involving an estimated number of at least 4,500 professionals:

- The *Sofala Bank shrimp trawling industrial fishery* is closed to new operators, and is subject to a closed period of 3 months, which is tending to approach 5 months. Its target is penaeudean shrimps, but the catch is 70-80 per cent by-catch of very low commercial value fish. This leads to significant quantities being discarded, as well as increasing deliveries to artisanal fishermen. Shrimp catches have reached volumes of around 6-7,000 tonnes, which are processed, frozen on board, and mostly exported, mainly to Europe, with an annual value of around 50-60 million USD;
- The *deep water shrimp (gamba) trawling fishery* has undergone an irregular evolution due to its great sensitivity to variations in the costs of production and in the price of gamba and the accompanying crustaceans. The catches are far from the estimated potential which is about 3,000 tons. The catches are processed and frozen on board, with some processing on shore, and the product is exported to Europe and South Africa;
- The *line fishing industrial fishery* extends along the entire coastal zone from the far north to parallel 21° between the depths of 25 and 200 metres. Its target species are the demersal fish that inhabit rocky beds, notably slinger seabream (*Chrysoblephus puniceus*), santer seabream (*Cheimirus nufar*), humphead snapper (*Lutjanus sanguineus*), blue skin seabream (*Polysteganus coeruleopunctatus*), kingfish (*Scomberomerus commersonii*), red porgy (*Lutjanidae*) and scads (*Carangidae*). Catches have not exceeded 300 tonnes in recent years. The fish undergo an initial processing on board, consisting of gutting and cleaning, and later processing on shore. Almost all production of high commercial value is intended for export to South Africa and Europe, and that of lesser value is sold on the local market;
- The *tuna purse seine and long line industrial fisheries* are undertaken by licensed foreign fleets, which operate in the EEZ from 12 nautical miles off shore. Purse seine fishing occurs mainly between parallels 10° 32' and 20° South and long line fishing between 20° and 26° 52' South, with particular intensity below parallel 25° South. The

peak period of fishing activities occurs between May and August. The fishery employs only foreign labour. The catches are conserved on board and transferred to transport ships or unloaded at foreign ports, which means that this production is not considered as a Mozambican export;

- The *deep water lobster industrial fishery* extends along the continental slope adjacent to the Boa Paz Bank, between parallels 22° South, near Vilanculo, and the Inhaca area, North of parallel 27°, in depths of between 200 and 500 metres. In the second half of the 1990s, the fishery was abandoned due to overfishing, and the resource is still recovering.

In 2007, a fleet of about 100 vessels was involved in marine *semi-industrial fisheries*, distributed among the southern Sofala shrimp trawling fishery (46), the Maputo Bay shrimp trawling fishery (22) the Limpopo River mouth shrimp trawling fishery (4), the Angoche shrimp trawling fishery (8) and line fishery on coastal rocky beds (20).

- The *southern Sofala shrimp trawling fishery* occupies the area marked by the parallels of Machaze (19° 47' south), North of Beira, and that of the mouth of the Save river (21° south) and the meridian 35° 11' East, where the operation of industrial vessels is forbidden. The fishery is subject to a closed period of 2-3 months. Its target species are the same penaeudean shrimps that exist in the Sofala Bank. The catches of this fishery are all processed on shore, at small industrial units licensed for this purpose. The end product is sold locally and exported to South Africa. The by-catch, which is also very abundant and of low commercial value, is all kept on board and later processed in salt/drying in artisanal fishing centres along the coast, notably at Chiloane. The fishery involves not only fishermen and shore support staff but also numerous middlemen, notably those involved in collecting, processing, transporting and selling the produce – which gives it additionally great social importance. It also makes a significant contribution to food security.
- The *Maputo Bay and Limpopo mouth shrimp trawling fisheries* are located in a marked area in the Bay of Maputo between Inhaca, Macaneta Point and the access channel to Maputo harbour, and in the area between the mouth of the Limpopo, in Gaza, and the Quissico lighthouse, in the depth of 10 m and up to a distance of 20 nautical miles from the coast. They are both subject to closed periods identical to that for the southern Sofala fishery and the areas are banned to industrial trawlers. The fisheries are subject to control over the fishing effort, not only through the number of boats but also through their technical characteristics. They both target the same species as the southern Sofala shrimp fishery, and catch the same type of by-catch. The production has the same destination and the same importance in social and food security terms as that described for the southern Sofala fishery. The main difference is that the by-catch is sold fresh in Maputo city;
- The *Angoche shrimp trawling fishery* does not have a defined fishing area barred to industrial fishing, like the two previous fisheries. Nonetheless, the fishing area extends between Angoche and the mouth of the Ligonha River. Apart from the closed season, no other specific management measure has been defined. In everything else the conditions are identical to those of the southern Sofala fishery;
- The *line fishing on rocky beds fishery* extends along the entire coastal zone from parallel 21° to the far South, between the depths of 20 and 150 metres up to a distance of 30 nautical miles from the coast. The fishery is subject to a limitation on fishing effort with a maximum of 25 boats using ice, but this maximum has never been reached in recent years. Its target species are essentially the same demersal fish as the industrial fishery. The catches have not exceeded 500 tonnes, and the treatment and sale of the produce obeys the same forms as described for the industrial fishery.

The only *inland* areas where fishing activities that can be compared to semi-industrial fishing are undertaken are Lake Niassa, where ornamental species are fished, intended for export by

air, and the Cahora Bassa dam lake in Tete where there is the kapenta fishery which provides the greatest volume of catches in the country for a single target species – about 10,000 tonnes sold both inside the country and in neighbouring countries.

Alongside the fishing activities described above, *recreational and sport fishing* is acquiring growing importance in the provinces where tourism activities linked to the sea are being developed, namely Cabo Delgado, Inhambane, Gaza and Maputo provinces.

Aquaculture

Aquaculture in Mozambique was, until the 1990s, limited to inland waters, associated with agricultural activities. This situation changed in the 1990s, with the emergence of the first commercial undertakings:

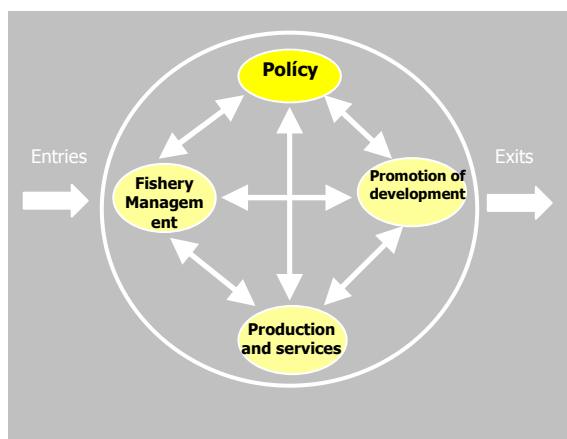
- The farming of penaeudean shrimps, mainly tiger shrimps (*P. Monodon*) is currently undertaken by three private companies in a total area of about 2,500 ha in Cabo Delgado, Zambezia and Sofala provinces. However, the studies made show potential for using about 33,000 ha. Other studies show that there are about 10,000 ha fit for farming mussels and other bivalves in the bays of Maputo and Inhambane. The viability of farming seaweed has also been shown in Cabo Delgado and Nampula provinces;
- It is estimated that fresh water species are currently being farmed in slightly more than 3,500 tanks in Manica, Niassa, Tete, Sofala and Zambezia provinces. But, in terms of potential, it is estimated that a total of 258,000 ha are appropriate for small scale inland water aquaculture. Fresh water aquaculture, extensive or resorting to food that does not compete with human use, with agricultural activities could provide an increase in the supply of animal protein available in the countryside, and contribute to raising the income of peasant families and improving food security at local and even regional level.

1.2 The institutional framework of the Fisheries sector

At central level

The administration of Mozambican fishing is a system ordered in political, economic, scientific, social and technical terms, expressed in legislation and other regulatory instruments, made operational by a series of institutions formed by the Ministry of Fisheries (MP) and the respective local (provincial and district) fisheries bodies, and also the central institutions it supervises and their respective local delegations.

The system includes the following integrated sub-systems, namely, *policy making*, *fisheries management*, *promotion of development*, and *production and services* exercised by the government or with government participation.

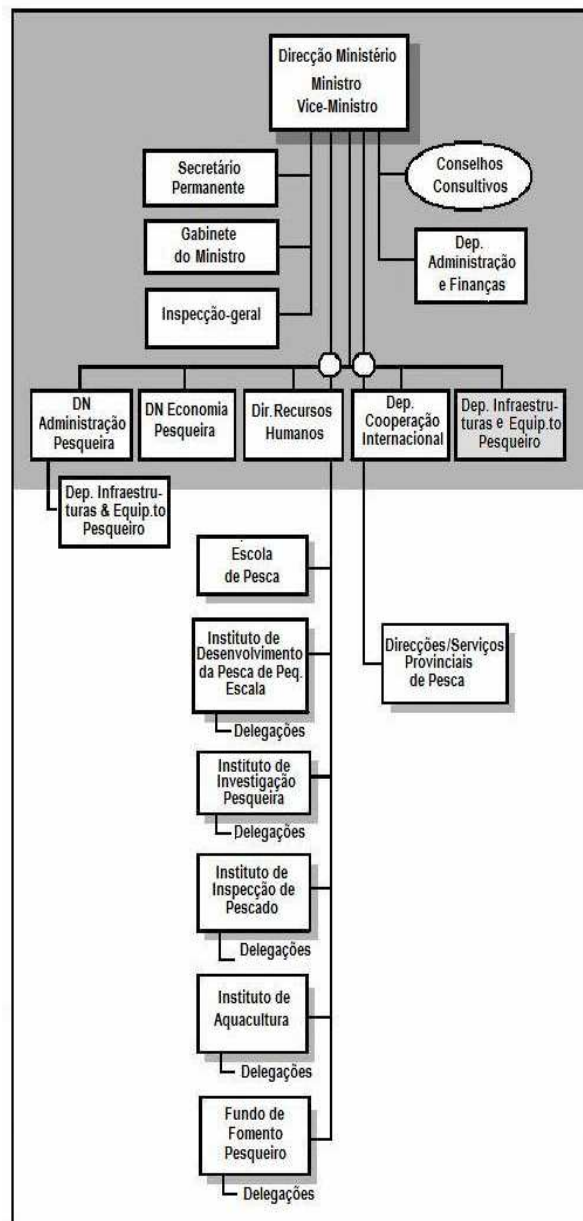


Source: *As Pescas Marinhas de Moçambique*, by Joaquim Tenreiro for FFP. 2006.

The main responsibilities of the MF, as a *political body*, concern the establishment of fisheries development policies and strategies, implementing them through development plans, as well as coordinating implementation through guidance and control of the performance of the various sub-systems and the creation of a business environment favourable to the operators and to new investors.

The *fisheries management* sub-system consists of the following institutions:

- *National Institute of Fisheries Research* (IIP), whose task is to look after the sustainability of resources;
- *National Directorate of Fisheries Administration* (DNAP) which is still an integral part of the MF and whose objective is to monitor, licence and supervise fishing activity,
- *National Institute of Fish Inspection* (INIP), the objective of which is to ensure that the quality of fisheries produce, exported or imported for domestic consumption, is in accordance with the health conditions stipulated in Mozambican legislation and in international provisions.



For its part, the *fisheries development promotion sub-system* consists of the following institutions:

- *National Institute for the Development of Small Scale Fisheries* (IDPPE), which seeks to promote the development of small scale fishing, with particular attention to reducing levels of poverty and promoting the well-being of communities of artisanal fishermen;
- *National Institute for the Development of Aquaculture* (INAQUA), which has the purpose of promoting aquaculture;
- *Fisheries Promotion Fund* (FFP), whose objective is to manage the financial resources intended for public investment in the sector and to grant loans intended for development; and
- *Fisheries School* (EP), which provides basic and mid-level specialist training required for the development of the sector, as well short term training courses.

Finally, the *production and services sub-system* is gradually disappearing. In the past it consisted of the government and mixed companies. Practically all that remains is the government holdings in mixed shrimp fishing companies, such as Pescamar.

At local level

The Fisheries administration has a local presence in the provinces and districts. The administration of artisanal fishing, as regards issuing and charging for fishing licences, supervision, and collecting fines, has been in the power of the district administrator since 1 October 2006. At levels lower than the district (administrative post and locality) any powers in terms of fisheries administration are exercised by delegation of powers by the district administrator.

The administration of semi-industrial and industrial fishing is exercised by the provincial fisheries administration body, currently integrated into the Provincial Fisheries Directorate (DPP).

By attribution of the Minister of Fisheries, and in coordination with the administration of the respective districts, the community fishing councils (CCPs) may exercise some of the attributes that flow from the powers granted to the district administrator.

The central fisheries administration institutions, such as the IDPPE, FFP and IIP, possess provincial delegations and the first named is also represented in some districts and even down to a series of some localities.

In any case, the legislation always prevails (laws, regulations and management measures in force).

1.3 Recent fisheries development efforts

National reference instruments

The fisheries development policy in force has its reference points in a series of policy and strategy documents that are summarised below, and which express a major part of the national efforts to develop the sector.

- The *Government's Five Year Programme for 2005-09* is the reference point for all policy and strategy instruments and national development plans during the current administration. It considers objectives that are achievable in the short, medium and long terms, which are later enshrined in development plans. According to this programmatic document, the objectives and national priorities are: (i) reducing the levels of poverty, (ii) economic and social development, with priority to reducing regional imbalances, (iii) consolidation of National Unity, Peace, Justice and Democracy, (iv) valuing the culture of rigour at work, (v) fight against corruption, red tape and crime, and (vii) strengthening of sovereignty and international cooperation.

The specific objective of poverty reduction in the period 2005-09, to be achieved through social and economic development, seeks: (i) socio-demographic transformation, with a more educated, healthier population, acting on its own initiative, prepared for the challenges of a dynamic world, and (ii) the development of basic infrastructures (physical, technological and applied research and extension) and institutions, capable of making private investment viable, for a solid, sustainable and competitive economy, etc. Like agriculture, livestock, forestry and wild life, this document defines for Fisheries the following economic development objectives: (i) improvement in the domestic supply of fish produce through increasing the amount unloaded and reducing post-harvest losses, (ii) growth of export value by increasing the production of aquaculture and by adding value to artisanal production, (iii) improvements in the living conditions of fishing

communities through integrated social development activities, (iv) sustainable exploitation of fish resources, and (v) contribution to improving the balance of payments.

- The *Action Plan for the Reduction of Absolute Poverty (PARPA II) for 2006-09* is the national plan laid down by the Government to attain the great national objective of poverty reduction. To attain this, the following conditions should be guaranteed: (i) high economic growth, oriented towards improving the well-being of citizens, (ii) peace and democracy consolidated, alongside social stability and security of citizens and their property and the guarantee of individual freedoms, (iii) redistribution of resources promoted by the state through the provision of public services seeking poverty reduction, (iv) human capital developed, practices of good governance and macro-economic stability established, contributing to the development of agriculture and the rural economy, (v) role of savings strengthened, for greater sustainability of the efforts to improve living conditions and the well-being of Mozambicans, (vi) favourable business environment, (vii) tax revenues increased by 15% by 2009, without worsening the tax burden, and (viii) strengthened participation by civil society in the fight against poverty, alongside maintaining the support provided by international cooperation.

For Fisheries, the general objectives indicated by PARPA II are the following: (i) continue strategies seeking to ensure permanent access to the international market for national fisheries produce, acting to guarantee quality through consolidating the fisheries produce inspection service, as well as in strengthening competitiveness and in diversifying national fisheries produce for export; (ii) take adequate quality control measures through consolidating the fisheries produce inspection service, as well as in strengthening competitiveness and in diversifying national fisheries produce for export; and (iii) ensure that adequate measures are taken to promote environmental sustainability in this sector through integrated management of the marine and coastal environment and of the fisheries resources, that protects important ecosystems (mangroves, corals and coastal and interior wetlands).

As for artisanal fishing, PARPA indicates as objectives: (i) improving the living standards of fishing communities, and (ii) guaranteeing the sustainable exploitation of fisheries resources and of aquaculture. Also according to this document, government actions in this area seek to: (i) create and/or rehabilitate infrastructures to support artisanal fishing in the main fishing centres, (ii) increase the levels of supply of national fisheries produce to the domestic market, (iii) encourage the distribution and sale of fisheries produce and of fishing inputs, and (iv) increase the levels of production of small scale aquaculture. Also according to PARPA II, these actions take on the following aspects: (i) strengthen the supervision of fishing and of aquaculture, (ii) support the co-management of artisanal fisheries, (iii) build the capacity of the CCPs, (iv) pursue the ordering of artisanal fisheries and of aquaculture, (v) pursue implementation of the fisheries statistical plan, (vi) strengthen institutional coordination of aquatic conservation areas, and (vii) introduce, improve and publicise improved techniques of fishing, conserving and processing artisanal fisheries produce.

As for what is called commercial (industrial and semi-industrial) fishing, the objectives indicated in PARPA II for the Fisheries sector are the following: (i) improve the competitiveness and sustainability of commercial fishing, so as to (ii) increase its contribution to exports. To attain these goals, the following actions are programmed: (i) improve the commercial fishing support installations, (ii) promote the training of onshore technical staff and managers for the fishing companies, (iii) conclude the reform of the fisheries public administration, (iv) strengthen training in basic specialisms missing in the sector, (v) support the creation and certification of Mozambican brands for shrimp, and (vii) establish a national market information system.

- The *Food Production Action Plan (2008-2011)*, starting from the finding that the national food balance notes there is a deficit in certain basic foodstuffs, defines

objectives and specific actions, so that the food production sectors, such as fisheries, may gradually overcome this deficit. The objective advocated for fisheries is to increase the supply of national fisheries produce, envisaging an increase in the current levels of production from 20,000 to 30,000 tonnes, at overall growth rates of 9% in 2009 and 10% in 2010 and 2011. For each of the ten provinces, the districts have been identified, based on their fisheries potential, where efforts should be oriented towards increasing catches and/or farming of fisheries produce, through identifying the key activities to be undertaken, namely research, catches and farming, processing and marketing of fisheries produce.

The intervention strategy to attain the objectives advocated for increasing fisheries production consists of (i) eliminating market failures through strengthening linkages between production and consumption centres; (ii) promoting more productive fishing gear that seeks to catch under-exploited or unexploited resources in new fishing areas accessible under existing technical conditions; (iii) encourage initiatives that seek to create activities complementary to fishing, such as processing, conservation of fisheries produce, maintenance and repair of fishing equipment and tackle, and promotion of alternative markets; (iv) make improved fry available to fish farmers; (v) introduce improved feed in fish farming; (vi) strengthen the existing extension services for the promotion of fish farming, and (vii) set up lines of credit at preferential interest rates for the private sector.

- *Agenda 2025* is a long term vision, approved in 2003, drawn up through an expanded participatory process at national and provincial levels. Its objectives are focused on eradicating poverty and accommodated in the national planning instruments with a view to economic and social development.

Sector instruments for the development of fisheries and aquaculture

- The *Fisheries Master Plan 1995-2005* (PDP) is the oldest of all the sector reference documents. It is currently being assessed and revised. It laid down for the fisheries sector the following general objectives: (i) improvement in the domestic supply of fisheries produce to cover part of the country's food deficit, (ii) increasing the net foreign exchange revenue generated by the sector, and (iii) improving the living conditions of fishing communities.

Although the envisaged restructuring of the commercial shrimp fisheries, through strengthening the relative weight of the semi-industrial fishery compared with the industrial fishery in the Sofala Bank, did not happen due to an increase in the fishing effort in the industrial fishery, and although the results of the desired diversification of industrial and semi-industrial fisheries production were modest, in everything else the PDP achieved important results, particularly regarding the withdrawal of the government from the productive sector, and the consequent reform of the public administration and increase in the role of private initiative as the engine of development, improvement in the well-being of the communities of artisanal fishermen, and the continued development of human resources.

- The *Strategic Plan for the Artisanal Fishing Sub-sector for 2007-2011* (PESPA) has as immediate objective the "Improved living conditions in the communities of artisan fishermen, consisting of (A) fishing activities based on traditional gear and methods, providing added results, corresponding to their potential, while at the same time, in favourable areas, more advanced forms of fishing, particularly on the open sea, are developed; (B) better health, education and water supply conditions, in a framework of strengthened capacity of the communities to solve their own priority problems; (C) expanded networks for marketing fisheries produce and inputs, providing a greater basis for sustainability and development of artisanal fishing, both in its subsistence and its

commercial forms; (D) more developed financial services, aimed not only at fishing, but also helping to diversify the activities undertaken by members of the communities; (E) a framework of greater rigour and effectiveness on the part of the bodies of the fisheries administration who seek to support the development of artisanal fisheries.

It is expected that this development effort will result in reducing poverty in the communities dependent on artisanal fisheries and contribute to increasing both local and general food security, an aspect which should, in principle, be part of the immediate development objectives of the sector.

Taking into account the national goal to reduce absolute poverty, *the target group at the level of the immediate objective* of PESPA is the poorest households in the communities dependent on subsistence artisanal fisheries, for which the priority in terms of improving living conditions consists in access to better social and economic conditions.

- The *Strategy for the Development of Aquaculture* in Mozambique seeks to ensure sustainable use of the aquaculture potential, respecting the environment and promoting economic and social development, through the creation of a sustainable, competitive and diversified aquaculture sector. The strategy pursues three specific objectives, namely: (i) to promote the sustainable development of aquaculture in order to increase the income of fish farmers thus contributing to the objectives of PARPA II; (ii) to increase the current levels of annual production of salt-water shrimp and other aquatic species, intended for export and for domestic consumption; (iii) to establish a legal, normative and institutional management framework for aquaculture that is appropriate and effective guaranteeing sustainable management, administration and exploitation of aquaculture resources.
- The *Small Scale Aquaculture Development Plan 2009-13*, under appraisal, seeks the implementation of the above mentioned strategy. The key provinces initially prioritised for immediate aquaculture development are Manica, Zambezia, Tete and Niassa where good quality water and soil exist. The strategy is based on linking the small scale sector to larger companies which will act as a driver for the development of small scale aquaculture. The experience and logistics of the commercial companies and facilitation by the government will be crucial for triggering the development of the small scale sector into profitable businesses.

According to the plan the role of the government is to provide fiscal incentives and credit, to facilitate processing and exporting activities and to conduct applied research activities and extension services.

The main activities under the plan are restocking of fresh-water bodies, promotion of fish farming techniques, integration of aquaculture into agriculture activities, extension programmes, training of extensionist agents, preparation and implementation of human resources development programmes, provision to INAQUA for long term international technical assistance and the creation of its provincial delegations, integration of aquaculture in the national *Rural Development Plan*, formalisation of the collaboration between INAQUA and the Ministry of Agriculture, establishment of basic infrastructure for the promotion of small scale aquaculture, setting up a statistical system for aquaculture, conducting applied research on the existing species, undertaking of local and regional market studies, promotion of credit schemes involving micro credit institutions, promotion of a favourable business environment in aquaculture, coordination at central and local levels with other government institutions, promotion of aquaculture associations and of the dialogue in the aquaculture sub sector as well as of the regional and international cooperation.

- The *Fisheries Research Development Strategy (2008-2012)* envisages nine strategic objectives that may eventually imply reformulating the current organic structure of the

IIP so as to better implement the strategy. These strategic objectives are: (i) to develop ecosystem-based integrated fisheries research, through the strengthening and improvement of the existing working areas and the expansion of their activities to new areas; (ii) to strengthen basic research capacity in aquaculture; (iii) to develop support services in information technologies and modelling of research programmes; (iv) to increase the number of scientific publications in the institution; (v) to increase publicity for research results and management measures in the fisheries sector and in society in general; (vi) to guarantee the material conditions for research at sea; (vii) to increase cooperation within the sector and with research institutions nationally and internationally; (viii) to adopt a code of scientific ethics for fisheries research; and (ix) to reorganise the institution so that it can deal adequately with the Vision and Objectives of the present strategic approach for 2008-2012.

To deal adequately with these objectives, the approach also envisages a series of premises which are: (i) to improve the technical and scientific capacity of the research staff so that the quality of research and advice for the sector and beyond may be improved, with a view to better management of fisheries resources; (ii) to increase the leadership and management capacity of the IIP's leading bodies; (iii) to improve internal communication in the IIP; and (iv) to develop mechanisms to increase funding projects in order to improve the functioning of the IIP.

The strategy advocates regular assessment of implementation, to allow corrective measures to be taken in good time. There should be at least two moments for such assessment: one at the end of 2009, the first year of implementation, in order to check whether implementation has begun well, and the other in late 2011, the penultimate year of implementation, to identify which priority actions should be taken in the following year so as to guarantee that the objectives are attained, and also draft a new strategic approach for 2013-2017.

- The *MCS Policy* and the *Implementation Strategy* are based on the principle enshrined in the Fisheries law, according to which “fisheries resources are owned by the state, which is responsible for ensuring that fishing activities do not threaten the sustainability of the resources, and that the benefits for the country resulting from these activities are maximised”. The document defines the roles and responsibilities of all the national institutions involved in MCS operations. It also establishes the means for guaranteeing sustainability of its activities, which are an integral or complementary part of the fisheries management system.

The policy is harmonised with regional and international programmes and protocols such as: (i) the SADC Fisheries Protocol; (ii) the FAO International Plan to Prevent, Discourage and Eliminate Illegal, Undeclared and Unregulated Fishing; (iii) The United Nations Convention on the Law of the Sea (UNCLOS).

- The *National Plan to Combat Illegal, Unreported and Unregulated Fishing* seeks, in the first place, to obtain knowledge of the extent and impact of its occurrence in the most important or most vulnerable national fisheries. The objectives are those laid down in the International Plan of Action (PAI-IUU), and based on which it is attempted to draw up a series of additional measures, essential for filling in the gaps and shortcomings in the system. The intention is to reduce to the minimum the incidence of IUU fishing in the national fisheries.
- The *2009 Economic and Social Plan* (PES) is the annual instrument to implement the government's Five Year Programme and the national plan (PARPA II). With regard to the Fisheries sector, this document contains references to production and export indicators for fisheries produce originating in artisanal, industrial and semi-industrial fisheries and aquaculture, the perspectives in licensing and budgetary implementation and main policy measures.

Following the reduction in the fishing fleet in the first half of 2008 by about 11% in shrimp catch, 20% in deep water shrimp and 5% in line fishing, due to the difficulties faced by operators because of the increased fuel prices and falling prices for fisheries produce, the quotas granted were reduced by 1,000 tonnes for shrimps, 440 tonnes for deep water shrimp and 80 tonnes for line fish. Even so, PES 2009 envisages a growth of about 9% in the volume of catches.

- The *Sofala Bank Shrimp Fisheries Management Plan* is still under appraisal. The initial draft contains a strategic approach in order to achieve the economic and social objectives in each of the three fisheries that exploit the Sofala Bank shrimp resource, in order to define the management measures to the overall maximum effect in the three fisheries (artisanal, semi-industrial and industrial).

National efforts with international assistance

The national efforts undertaken with international assistance to develop the fisheries sector currently involve fifteen projects (January, 2009). The total value of these *projects in progress* is about 83.5 million USD, distributed among artisanal fisheries (five, representing about 71% of that sum), aquaculture (three, almost 1%), inspection and quality control of fisheries produce (three, almost 3%), port infrastructures (two, 24%) and public fisheries administration (two, almost 2%). Of these projects, the following aspects stand out:

- The *Sofala Bank Artisanal Fishing Project* (PPABAS), with a value of almost 18 million USD, co-financed by IFAD, Norway, BSF and the Government, which took place over six years in the period 2002-08 and which has an extension to 2011. It covers actions of fishing development (research, fishing gear, processing), development of markets and access route, strengthening of financial services, community development (education, health, water, associations, co-management), and institutional support, policy formulation and legislation;
- The *Cabo Delgado and Northern Nampula Artisanal Fishing Project* (PPCDNN), with a value of 23.3 million USD, co-financed by the ADB and the Government, running in the six year period 2003-09. It covers provision of credit, development of community infrastructures and institutional support;
- The *Inhambane and Gaza Coastal Fishing Development Project*, with a value of 4.4 million USD, co-financed by Italy and the Government, running for the three year period 2008-10. It covers the improvement of infrastructures and access to support services, processing and marketing, training and strengthening of community organisations;
- The project for *Poverty Reduction through Fisheries in Mocímboa da Praia*, with a value of almost 600,000 USD, co-financed by Canada and the Government, running for the five year period 2005-10, covering the strengthening of local capacity, institutional support, the introduction of sustainable fishing practices, processing, environmental protection and gender equity;
- The *IDPPE Support and Institutional Capacity Building Project*, with a value of almost 600,000 USD, co-financed by Ireland and the Government, running in the period 2007-10;
- The project on *Institutional Support for the Development of Sustainable Aquaculture*, with a value of almost 200,000 USD, co-financed by Iceland (ICEIDA) and the Government, which is taking place in 2008 and 2009. *In 2010 this project will be included in the Programme co-financed by Norway and Iceland with additional value of around 600.000 USD* . It covers training activities, development of a data base, and support for the establishment of INAQUA;

- The *Marine Sciences Human Resources Development Projects*, with a value of 114,000 USD, co-financed by Canada (CIDA) and the Government, taking place between 2007 and 2012. It covers training in MSc. and institutional and community capacity building;
- The project on *Developing a Sustainable Model for Small Scale Aquaculture in Tanks and Cages in Niassa Province*, with a value of 204,000 USD, co-financed by Spain and the Government, taking place in 2008 and 2009. It covers community and institutional capacity building and formulation of management plans;
- The project to *Support the Fisheries Produce Inspection System in Mozambique*, with the value of 2 million USD, co-financed by the United Kingdom (DFID) and the Government, which is taking place between 2007 and 2010. It covers improvements to laboratories, the building of residences for inspectors in the provinces and training;
- The project on *Institutional Capacity Building and Acquisition of Laboratory Equipment*, with the value of 137,000 USD, co-financed by UNDP, USAID, EC and the Government, is taking place in 2008 and 2009. It covers the supply of laboratory equipment and equipment for monitoring heavy metals;
- The project on *Strengthening Capacities for Improved Quality Control of Fisheries Produce (traceability of products of small scale fishing)*, with the value of 210,000 USD, co-financed by Spain, EC and the Government, is taking place in 2008 and 2009. It covers technical assistance for the diagnosis and validation of control procedures, training of inspectors, technical staff and extensionists, and training of semi-industrial and artisanal operators;
- The *Beira Fishing Port Rehabilitation Project*, with the value of 19.7 million USD, co-financed by BADEA, BID and the Government, which is being undertaken over the four and a half year period between 2004 and 2009. It covers the rehabilitation of the quay number 1 and the processing room, repair of the cold stores, construction of support infrastructures, dredging and the supply of equipment;
- The project to *Rehabilitate the Workshops of the Maputo Fishing Port*, with the value of 196,000 USD, co-financed by Japan (OFCF) and the Government, which is taking place in 2008 and 2009. It covers maintenance, the supply of spare parts and technical assistance;
- The *Cahora Bassa Research, Monitoring and Fisheries Development Project*, with the value of 585,000 USD, co-financed by Iceland (ICEIDA) and the Government, which is taking place over the four year period between 2007 and 2010. It covers building the IIP delegation, training (MSc and PhD), research and monitoring of the semi-industrial and artisanal fisheries, and the development of fisheries strategies and management plans;
- The *Fisheries of the South-West Indian Ocean (Mozambique)*, with the value of 826,000 USD, co-financed by the GEF (under the Fisheries in the Southwest Indian Ocean project, which has a total value of 22.7 million USD, covering eight beneficiary countries, namely the Comoros, Kenya, Madagascar, Mauritius, Mozambique, South Africa and Tanzania) and the Government, which is being undertaken over the five years between 2008 and 2012. It covers information surveys, data conservation and information technology, assessment and sustainable use of crustaceans, assessment and sustainable use of demersal fish, assessment and sustainable use of pelagic fish, inclusion of biodiversity in national and regional fisheries management, and the strengthening of national and regional fisheries management.

In addition to these projects, the following projects are awaiting the *approval or signing* of the respective agreements:

- The project on the *Development of Maputo Coastal Resources Fishing*, with the value of 1.9 million USD, co-financed by Japan (JSDF) and the Government. It covers

community and institutional capacity building, formulation of resource management plans and adaptation to climate change;

- The project on *Strengthening the Health Conditions of Fisheries Produce in the ACP Countries*, co-financed by the EC and the Government, yet to be approved.

Three projects sponsored by Iceland, which were under implementation, have, by agreement between Iceland and Norway, been included in the present Fisheries Sector Assistance Programme and they are part of the sub-components previously defined or of new ones. They are: (i) *Construction of the Aquaculture Laboratory in Marracuene*, included in the fisheries research sub-component (IIP), (ii) *Support for the National Inspection System*, which originated a new sub-component of Fish Inspection (INIP), and (iii) *Quality Control and Guarantee in Handling and Processing Fisheries Produce*, included in the new sub-component of Training by the Fisheries School.

There is also a series of projects which are at a more or less advanced stage of negotiation but which cannot be yet considered as agreed. In some cases they are no more than ideas for projects (see Appendix 1).

Cooperation between Mozambique and Norway and Iceland

If the humanitarian support provided by Norway during the Mozambican national liberation struggle is not considered, the first Norwegian involvement in cooperation took place more than thirty years ago, when the *R/V Dr. Fridtjof Nansen*, then at the service of FAO, made the first overall assessment of the fish resources in the marine waters of Mozambique. More or less at the same time, Norway began its support for the Mozambican fisheries sector under a Nordic programme (MONAP).

During the 1980s and early 1990s, cooperation between the two countries in fisheries developed gradually, but it was relatively small in scale. It covered the areas of research, planning and management of marine resources, with an interest often focused on the resources with the greatest economic importance.

The following results of this cooperation stand out: (i) the Fisheries Law (in collaboration with FAO); (ii) the assessment of the state of exploitation of the main fisheries resources, particularly Sofala bank shrimp, deep water shrimp (gamba) and spiny lobster; (iii) definition of the 1995 Master Plan (in collaboration with DANIDA); (iv) higher training of technical staff; (v) support for fisheries management, for taking decisions on management measures; (vi) support for the development of artisanal fishing, of which the most recent example is co-participation in PPABAS; and (vii) cruises for general assessment of the state of fish resources in the waters under the country's jurisdiction.

Only from 2003, did the scale of this bilateral cooperation become larger, following several review exercises, of which held in December 2002 stands out, after the Mozambican Ministry of Fisheries was set up, which served as a basis for the later definition of an assistance programme for the fisheries sector which extended from 2005 to early 2009, and the review of the programme held in 2008 which advocated continuation of the programme and suggested that some adjustments were introduced.

The cooperation between Iceland and Mozambique started in mid-nineties and during the first 10 years was basically oriented on supporting fish quality control in Mozambique through support to the Government to develop the national system of fish inspection, which later became the INIP. The primary objectives of these projects were to assist the Government of Mozambique to fulfill its requirements to the main export markets through establishing a fish inspection

agency; building up competence in fish inspection to enable the authorities to enforce regulations regarding fisheries and fish processing; developing a inspection manual, building laboratories along the coast, to deal with necessary microbiological and chemical analyses and supporting the regulatory framework regarding fisheries regarding export. In addition, regarding to the support to INIP in the last 5 years, the support to the Ministry of Fishery has been expanding gradually. The following results of this cooperation stand out: (i) Monitoring and Development of the Fisheries in the Cahora Bassa Reservoir; (ii) Development of fishery training and educational programs, training of teachers and running mobile courses for the fishing industry with focus on HACCP techniques, Hygienic and Sanitation and Traceability for small scale fish production; (iii) Institutional Capacity Development for Sustainable Aquaculture in Mozambique.

2. Justification of the Programme

2.1 The problems to be solved in the Fisheries sector

The problems to be solved in the Mozambican fisheries sector correspond to those which the development efforts described in the previous chapter are trying to overcome. The focal question can be formulated as *the fisheries sector is not contributing as much as it potentially could to the economic and social development of the country.*

This circumstance results from (A) the industrial fisheries not generating the level of income they could potentially provide, thus not allowing a greater part to be captured by the state or by other national bodies to be applied in economic and social development programmes seeking to alleviate poverty; (B) the artisanal fisheries are not providing the communities of fishermen and other professionals linked to fishing with the living conditions that would be possible, and this allows the persistence of pockets of poverty in the fishing communities and poor food security in the surrounding areas; (C) the semi-industrial fisheries do not yet occupy the place that would allow them to increase their impact in larger areas of the national territory and contribute locally in a more effective way to poverty reduction and to food security in the surrounding region; (D) aquaculture has not yet managed to make a significant contribution to food and nutritional security and to the well-being of the population, as well as to the country's economy; (E) the processing industry has played a limited role in the value chain of fisheries products, particularly those which could be exported with greater value added, as it is the case with the shrimp caught by the industrial fleet; (F) the institutional capacity of the public fisheries administration remains insufficient which is an obstacle for the economic and social development of the sector and for the management of fish resources and of the economic activities around fishing and aquaculture; (G) some specific cross-cutting questions such as the low level of funding for the Fisheries sector, the low level of importance granted in general to fishing activities outside the sector, conflicts of interest with other sectors, such as tourism, protected marine areas, the mining industry, oil and gas, etc.; and, finally, (H) some general cross-cutting questions such as the high levels of HIV/AIDS infection, situations that are socially disadvantageous for women, corruption in the public administration and society, and interventions that do not adequately safeguard the environment, are not yet satisfactorily treated within the sector.

regarding the industrial fisheries, the following main problems have been noticed: (a1) the Sofala Bank shrimp industrial fishery shows signs of overfishing of the resource due fundamentally to an increase in fishing effort beyond the levels recommended by research, which has reduced the level of income generated in the fishery; the international rise of the price of fuel and the drop of the price of shrimp has worsened this situation still further, dragging into crisis the most vulnerable ship-owners, while, at the same time reducing the share of income captured by the government for its development programmes and to finance the public administration of the sector; (a2) the deep water shrimp (gamba) industrial fishery, although the resource is moderately exploited, has seen its conditions – already unfavourable, in comparison with the shrimp fishery – further worsened due to the increased price of fuel and the poor export prices, not merely of “gamba”, but also of other deep water crustaceans; (a3) the industrial demersal fish fishery suffers from the same depressive factors indicated for the two previous fisheries; (a4) the spiny lobster fishery has not resumed since the resource was overfished in the second half of the 1990s; (a5) finally, the tuna fisheries – purse seine and long line – remain on the margins of the national economy, contributing nothing in terms of employment, supplies, transport of crew members, maintenance and port services, exports etc., thus maintaining a modest contribution limited to the sale of fishing

licences and the compensation for the concession of fishing rights to European and other foreign fleets.

In the artisanal fisheries, the situation described results from the following causes: (b1) poor results from artisanal fishing, (b2) defective marketing conditions in artisanal fisheries, (b3) complex and limited access to financial services on the part of artisanal fishermen, and also (b4) unfavourable social conditions prevailing in the communities dependent on artisanal fishing and (b5) insufficient performance of the public institutions responsible for promoting the development and management of artisanal fishing.

As for the semi-industrial fisheries, their difficult situation is caused mainly by (c1) the *semi-industrial shrimp fisheries*, the same reasons mentioned for the industrial fishery, and also due to the excessive industrial fishing effort, their expansion along the Sofala Bank, advocated in the PDP 1995-2005, could not occur; and (c2) the *line fishing semi-industrial fishery*, as a result of the combined effects of overfishing in the South of the Save river in the second half of the 1990s and of unfavourable economic conditions due to the price of fuel and restrictions on access to traditional export markets, such as Europe.

In aquaculture, the problem arises from the following causes: (d1) insufficient basic conditions for promoting the development of the activity, namely the lack of stations for producing larvae, fingerlings and juveniles, which leads to the use of species reproducing in the tanks of the fish farmers themselves, leading to slow and unproductive levels of growth; (d2) insufficient research and dissemination of techniques; (d3) lack of knowledge about the areas potentially appropriate for aquaculture²; (d4) absence of an integrated perspective of the development and management of coastal zones where aquaculture is inserted; (d5) very difficult access to credit for fish farmers; (d6) scarcity of feed, which is also expensive; (d7) poor coordination between institutions within the sector and the Agriculture sector; (d8) very limited extension capacity and weak presence of the extensionists among the rural communities; and (d9) lack of knowledge about the impacts of aquaculture in the environment.

In the processing industry, the main causes of the problems experienced are the following: (e1) the amount of fisheries produce processed, mainly shrimps using ice in the semi-industrial fisheries, but also in some artisanal fisheries, is modest when compared with the amount caught by the industrial shrimp fishery, which, by decision of the ship-owning companies, does not undergo any processing on shore; (e2) the low capacity to persuade the holders of significant quantities of shrimps (industrial ship-owners) to process them in the country; (e3) the difficulties resulting from EU restrictions on conditions of certification by the competent authority which, although being solved, are still in force for many small scale processing units.

The lack of sufficient institutional capacity by the public administration of the sector has the following main causes: (f1) poor functional coordination in the sector, particularly between the fisheries management and development promotion sub-systems, and between these and the policy body; (f2) the lack of sufficiently detailed and timely statistical information to make possible the definition of even more relevant policies, strategies and development plans and regularly accompanying their implementation; (f3) insufficient capacity to assess all the fishery resources and all the fisheries with the greatest economic and social importance and, in the cases where this is done, to formulate relevant and timely recommendations in all cases; (f4) insufficient capacity of the fisheries administration to interpret the research recommendations, and add to them relevant information from its own monitoring and convert the result into sound management measures; (f5) the lack of capacity to establish an effective presence throughout the Mozambican EEZ and to enforce the

² This is being solved for inland small scale aquaculture.

fisheries law and regulations, so as to eliminate illegal fishing activities and integrate the fleets present in the EEZ into the national economy; (f6) failure to consolidate the system of inspection and quality guarantee of fisheries produce to ensure compliance with the quality parameters demanded by the various international markets; (f7) the limited coverage of the network promoting the development of artisanal fishing and of the opportunities that are beginning to emerge to develop more commercial forms of fishing and to take advantage of opportunities in the value chain of the products of artisanal fishing due mainly to the lack of credit; and (f8) the lack of adjustment of current training courses to the new development priorities of food production and of making gains in the value chain of the fisheries produce originating in the different forms of fishing.

The questions referring to the specific and general cross-cutting questions are sufficiently explained above.

2.2 A long term vision of the Fisheries sector

A vision of the Fisheries within ten years was subject to an initial approach during the first debates about the new Fisheries Master Plan, envisaged to cover the period from 2010 to 2019.

In short, the following topics gathered from debates and in strategy documents already drawn up, are contributions towards the formulation of a long term vision:

- An industrial fishing sub-sector strengthened particularly through sustainable exploitation of fisheries resources and using improved support infrastructures, with a linkage to a processing industry that adds value to the catches, without state participation in the productive sector but with the growing presence of an appreciable number of national investors, thus avoiding concentration of interest in the most important fisheries, increasingly contributing to greater equilibrium on the country's balance of payments, and indirectly to poverty reduction;
- *"In 2015, artisanal fishing in Mozambique will still be undertaken in subsistence artisanal ways, though increasingly linked to the country's markets, and integrated into communities where social services have made considerable progress. At the same time, a relative advance will occur in the forms of commercial artisanal fishing in some fishing centres, strongly linked to domestic, and increasingly to regional, markets, where a greater number of complementary fishing services are located (maintenance, marketing, financial services, ice, conservation etc.), providing higher quality and greater diversification of fisheries produce, favouring greater concentration of artisanal fishing and hence higher incomes for all those involved. This evolution will take place in a framework of greater environmental stability in which the role of local initiative to develop and manage the artisanal fisheries will be increasingly strengthened". (in PESPA, 2006);*
- A semi-industrial fishing sub-sector strengthened, particularly as the result of sustainable exploitation of fishery resources, with an expanded implantation along the maritime coast, with a growing role in dynamiting the local economy and in developing job opportunities, thus contributing to greater food security in the markets of the interior, and participating increasingly in exports through expanding its linkage with the processing industry, thus contributing increasingly to greater equilibrium on the country's balance of payments;
- An aquaculture sub-sector in 2017 in which *"the natural resources with potential for aquaculture are effectively exploited, to support the growth and economic development*

of Mozambique and contribute to reducing levels of poverty" (in Strategy for the development of aquaculture in Mozambique 2008-17);

- A public administration of the sector at central and local levels with greater capacity of its technical and managerial staff, committed to practices of good governance and banking on correcting the deviations detected, determined to create an attractive business environment, particularly through establishing an adequate legal and regulatory framework regarding fishing, aquaculture, processing and the quality of fisheries produce, defining policies, strategies and development plans which correspond to the general interests and priorities of society, through promoting the development of the production of fisheries produce for domestic consumption and the extension of credit to fishing and complementary activities, promoting scientific and participatory management of the sector's natural resources, contributing towards stable environmental conditions, promoting the preservation of the historical memory of fisheries in Mozambique and arbitrating or promoting arbitration in eventual conflicts involving the main stakeholders of the sector or between them and third parties from other sectors.

2.3 Objectives of the new Fisheries Master Plan (2010-2019)

As already mentioned, the development of the Fisheries sector has been oriented by PARPA II, which is the national development plan for the period 2006-09, by the Fisheries Master Plan 1995-2005.

PARPA II (2006-09) is focused on poverty reduction and, as such, the objectives and strategy of the new Master Plan for the Fisheries sector should answer the following fundamental question:

How and to what extent can the Fisheries contribute to poverty reduction in the country in general and in the sector in particular?

The Ministry of Fisheries is currently promoting the assessment of the PDP and the drafting of a new master plan for the 2010-19 period. The debate has already begun, particularly on some of the central questions, such as the Vision and the immediate objective of the new master plan.

The initial conclusion of the discussion in the sector about the new PDP lead clearly to an alteration in the objectives, the priorities and in the strategy established earlier. In the current national and international contexts, the great priority of the Fisheries sector will be the production of fisheries produce for domestic consumption, thus contributing not only to greater food security and better nutritional status of the general population, but also to greater well-being of that part of the population that depends on this production for its subsistence. More specifically, this adjustment to the sector objectives means that the activities that generate fisheries produce for domestic consumption became the priorities. They are: artisanal fishing, semi-industrial fishing, the use of the by-catch from industrial shrimp fishery in the Sofala Bank and small scale fish aquaculture.

This change in priority does not mean that the objectives previously envisaged through industrial fishing are totally abandoned. But the industrial fisheries are asked to seek not only markedly economic objectives, such as supporting the balance of payments through obtaining an increasing amount of foreign exchange, but also to ensure that part of the income generated is captured by the government and used in pursuing national economic and social development objectives, with priority for poverty reduction. This adjustment has very important implications for the management of these fisheries.

Thus, it is assumed that the immediate objective of the Master Plan is expressed around the following objectives and priorities:

The sector's contribution strengthened in improving food and nutritional security in fisheries produce for the population, improved living conditions for the communities of artisanal fishermen, increased contribution by the industrial fisheries to achieving the national objective of poverty reduction, increased net contribution from the sector to the country's balance of payments, in a framework of a more effective fisheries administration and of sustainability of the fisheries resources and of environmental balance.

The target group in the new PDP is thus the population of Mozambique, with priority to its poorest strata.

2.4 The need for support from Norwegian and Icelandic cooperation in developing the Fisheries sector

Despite the progress since Mozambique independence in 1975, when the sector began to create – practically from nothing – a public fisheries administration, its technical staff, both in numbers, and in qualifications have not yet reached the levels desired.

Furthermore, after the withdrawal of the state from the productive sphere, following the implementation of the structural reforms begun in the late 1980s, and sharpened throughout the 1990s, now the fisheries administration plays essentially the role of promoting favourable conditions to the economic and social development of the sector. As a result, a large number of staff involved in activities that go beyond those entrusted to the current public administration was tempted to transfer to productive activities in the sector or in other sectors, which led to a loss of some capacity on the part of the various institutions.

This is a general shortcoming. It did not only affect the central and local institutions of the administration, but also professionals in the productive and service areas. This circumstance obliged the hiring of foreign professionals at a very high cost. The decentralisation in progress, transferring powers to the districts which were previously attributed to the central and provincial bodies of the administration sharpened still further the need for capacity building.

These difficulties do not just concern the staff but are also financial. Although the current operations of the public administration of the sector are totally funded from resources obtained through licensing, mainly from the Sofala Bank industrial shrimp fishery, the country does not have the financial resources to make investments and undertake other development actions. Thus, the resort to international cooperation is the way to overcome gradually the vicious circle whereby, if there are no resources for development, it does not happen, and if development does not happen, then the resources will not be obtained in order to, one day, make sustainable development.

Norwegian bilateral cooperation in the fisheries sector began with specific actions in the 1970s. As from the mid-1980s it was strengthened with the end of the multilateral programme maintained by the Nordic countries in Agriculture (MONAP) which had a fishing project. This bilateral cooperation has evolved gradually to institutional support in the area of small scale fisheries (following the end of MONAP) but mainly – and following a logical line maintained over more than two decades – to support fisheries research, the main aim of which was to list the potential of the fisheries resources in the waters under Mozambican jurisdiction, to support the capacity of the fisheries administration (located in the Ministry of Fisheries), to interpret the recommendations received from research and

convert them into management measures and, later, supporting the capacity of the Ministry of Fisheries to insert the information provided by fisheries research and administration into the sector's policies, strategies and development plans.

From the adoption of the programme of Norwegian aid to the Fisheries sector, in 2005, this cooperation has expanded to new areas, but has maintained that logical line of evolution. This explains the strengthened support given to fisheries supervision which involves large scale resources which, on its own, Mozambique would not be able to provide. The sense of opportunity in this evolution is justified by the ever increasing presence of fleets from distant countries and by increased awareness on the part of the international community of the need to halt illegal and damaging fishing practices.

Furthermore, the international crisis expressed in developing countries in 2007 and 2008 through the steep rises in the price of fuel and of foodstuff, and which is currently appearing through the effects of the international recession which followed the crisis in the American financial system and that of the countries most linked to it; all this poses the need for a strict redefinition of national priorities not just in conjunctural but also in structural terms.

The new ordering of Fisheries development priorities reflects, to a large extent, this realignment, placing food production and poverty reduction nearer the top of the priorities. These adjustments cannot be realised without international cooperation.

Recent Norwegian cooperation has launched long term actions and expectations, a fact that explains the desire expressed in the cooperation agreement for a "continued" action. This expectation is particularly expressed regarding creating an effective MCS system, an objective which can only be achieved in the long term. Hence the continuation of some of the activities begun in the programme that lasted until 2008 into a new programme which should cover a four year period, between 2009 and 2013.

This idea is strengthened by the fact that Norway and Mozambique have agreed that the fisheries sector should be one of the three priority sectors for bilateral cooperation.

ICEIDA's co-operation with the Ministry of Fishery (MoF) in Mozambique dates back to 1995 and has developed in accordance with government priorities.

The importance of fish quality has long been recognised and ICEIDA has been supporting fish quality control in Mozambique mainly through support to INIP but also through Escola de Pesca.

The primary objectives of these projects were to assist Mozambique to fulfil its requirements to the main export markets through: establishing a fish inspection agency; building up competence in fish inspection to enable the authorities to enforce regulations regarding fisheries and fish processing; building laboratories to deal with necessary microbiological and chemical analyses; and supporting the regulatory framework regarding fisheries with respect to export.

The Fish Inspection (INIP) is based in Maputo, Beira and Quilimane, and they are now also present in the northern provinces of Nampula and Cabo Delgado with two new laboratories which were constructed and technically established in 2007 and finished in 2008, both founded by ICEIDA. In the last 5 years ICEIDA has also supported, in addition to INIP, other institutes such as:

IIP. Research, Monitoring and Development of the Fisheries in the Cahora Bassa Reservoir, Phase I and Phase II. The total ICEIDA contribution was around US\$ 750.000.

Escola de Pesca. “Fish Quality Assurance of Fish Handling and Processing in Mozambique” Development of Mobile courses, with a total cost of \$680.000, of which ICEIDA have been supporting with the amount of \$620.000. Including the rehabilitation of the project office and library, acquisition of equipment, elaboration of educational material, training of teachers and running courses for the fishing industry with focus on HACCP techniques, Hygienic and Sanitation and Traceability for small scale fish production.

The Aquaculture Institute INAQUA. “Institutional Capacity Development for Sustainable Aquaculture in Mozambique” started in May 2008 and will be included in the Program co-financed by Norway and Iceland. The ICEIDA contribution on budget is \$640.000.

The Ministry of Fishery, with establishing an education management unit at the Human Resource Division. The support was \$100.000 and started in 2007. ICEIDA also supported MoF with \$12.000 to develop a database, initiated in November 2008.

Through this cooperation between ICEIDA and the Ministry of Fisheries ICEIDA has given a scholarship to a large number of people from Mozambique to gain a fisheries education at different levels, in many countries. This include 15 – 20 scholarships for the United Nation University Fisheries Training Programme in Iceland and at the University of Iceland and a number of scholarships in other countries like South Africa, Malawi, Namibia, Spain and also in Mozambique.

2.5 Lessons drawn from the first phase of Programme implementation

Iceland was not a cooperation partner in the first phase of the Programme.

The mid-term independent review of the programme supported by Norway noticed the existence of several constraints from which it draws some lessons. According to the report, some of these constraints are general to the country, while others are specific to the sector.

- The first finding is that the degree of programme implementation in its first phase was not uniform across all the components. In the cases in which a greater delay was discovered in implementation, this was not due to lack of resources but to the low capacity of implementation on the part of the bodies responsible for the execution, not just on the Mozambican side, but also, in some particular aspects, on the Norwegian side. This difficulty should be taken into account in the next phase through *strengthened monitoring of the programme from the moment of take-off, both in terms of lesser spacing and of a strengthened composition of the programme steering committee.*

Overcoming this difficulty could also be supported through the *establishment of functional coordination at the level of the various programme components*, thus anticipating the moment of introducing corrections which would normally be decided exclusively by the steering committee. The structure now adopted for the programme reflects this concern since it defines functional coordinators alongside those responsible for implementation;

- A second question concerns the enormous pressure exerted on fisheries managers, given their proximity to the sector's policy body, by those interested in obtaining fishing rights, which leads them to become involved in questions that are more of a policy than an administrative nature. The reverse situation also seems to occur which ends up causing some dilution of responsibilities. In principle, the solution to this difficulty lies in *separating the policy function and the fisheries administration function, a decision which has already been taken by the Ministry of Fisheries*;
- A third concern that was also shown by the programme execution concerns the insufficient capacity for economic analysis and planning caused by the insufficient statistical information available in the Ministry of Fisheries. Solving this constraint is a major priority, and the solution seems to be *the inclusion in the new phase of the programme of the revision of the current statistical plan and strengthening the capacity to hold studies and formulate policies and strategies*.

3. The Programme

3.1 Objectives of the Programme of Assistance to the Fisheries Sector

Taking into account the adjustment that the new Master Plan will certainly bring to the fisheries economic and social development objectives, Norwegian assistance is oriented, as up to now, towards the institutional development of the fisheries administration, while seeking to respond to the new priorities.

As mentioned above, the *development objective* of the Programme is thus that established and envisaged for the PDP 20010-19, of which the following approximate formulation can be presented:

The sector's contribution strengthened in improving food and nutritional security in fisheries produce for the population, improved living conditions for the communities of artisanal fishermen, increased contribution by the industrial fisheries to achieving the national objective of poverty reduction, increased net contribution from the sector to the country's balance of payments, in a framework of a more effective fisheries administration and of sustainability of the fish resources and of environmental balance.

The *target group at development objective level* consists of the population of Mozambique with priority to its poorest strata.

The *immediate objective* of the Programme, although not very different from that adopted in the previous phase, is formulated as follows:

The Fisheries administration with capacity and competence in the area of promoting the development and management of the fisheries and of aquaculture, in order to achieve sustainable and viable use of aquatic resources on the part of private operators and communities of fishermen and of fish farmers directly dependent on fishing and on aquaculture.

The *target group at immediate objective level* consists of the technical and managerial staff of the Fisheries public administration. Nonetheless, the Programme directly affects another, larger group of beneficiaries, consisting on the population that either depends directly on fishing and aquaculture for its food, or obtains it from them as its main source of income.

3.2 Structure of the Programme

The Programme is structured according to the functional arrangement of the public Fisheries administration, that is, according to the policy, fisheries management and development promotion components³.

For each of the components an objective is defined and a coordinating entity identified. From their part, the components "Fisheries Management" and "Promotion of development of the production of fisheries produce for domestic consumption" are structured by sub-components identified by the institutions belonging to the functional components of the

³ The productive sphere still under state control was not considered.

fisheries administration system. Each of these institutions is responsible for programme implementation.

In short, the components are:

- Policy, represented by the Ministry of Fisheries (MP), which coordinates the programme as a whole and implements the specific actions defined;
- Fisheries Management (coordinator: DNAP), represented in the Programme by the subcomponents of Fisheries Research (implemented by IIP), Fisheries Administration (implemented by DNAP) and Fish Inspection (implemented by INIP);
- Promotion of the development of the production of fisheries produce for consumption (coordinator: IDPPE), represented in the Programme by the subcomponents of Artisanal Fishing (implemented by IDPPE), Small Scale Aquaculture (implemented by INAQUA) and Training by the Fisheries School (Implemented by EP);
- Cross-cutting questions (coordinator: MP), covering the Sub-components of HIV/AIDS (implemented by DRH/MP), Good Governance (implemented by IG/MP), Gender (implemented by DRH/MP) and Environment (implemented by DNAP).

The programme includes the following projects sponsored by ICEIDA:

- The “Marracuene fish hatchery” project⁴, under the Aquaculture Department of the IIP, that became the Outcome 10 of the Fisheries Research (B1) sub-component, under Fisheries Management (B) component;
- The “Quality of fisheries produce” project⁵, under the INIP, became the Fisheries Inspection (B3) sub-component, also of the Fisheries Management (B) component;
- The mid-term review of the project “Processing of fisheries produce and quality control in the Fisheries School, Mozambique”⁶ providing recommendations that were included as the Training by the Fisheries School sub-component (C3), within the component on the Promotion of the Development of the Production of Fisheries Produce (C).

Throughout the present document differentiated information is not provided about the part of the programme originally sponsored by Norway and the part of the programme formed by the former projects sponsored by ICEIDA.

3.3 Objectives of the Components

A. The Fisheries Ministry institutionally strengthened (*Coordinating body: Ministry of Fisheries*):

The Ministry of Fisheries with greater capacity to formulate policies and strategies, make proposals for fisheries legislation, formulate plans and monitor them, as well as coordinate their implementation internally and with other economic and social sectors.

Target-group: The Ministry of Fisheries technical and managerial staff.

⁴ Vd. Project *Fish quality*, identification document. INIP and ICEIDA. September, 2008.

⁵ Vd. Project *Marracuene fish hatchery* identification document (draft). INIP and ICEIDA. September, 2008.

⁶ Vd. *Mid-term review of the Project Fish processing and quality control*. By Sigurdur G. Bogason for ICEIDA. November, 2008.

B. Fisheries management capacity strengthened (*Coordinating body: DNAP*)

The Fisheries administration with greater capacity to assess the state of exploitation of the fish resources and fisheries, to make recommendations, to convert them into management measures and to enforce fisheries laws and regulations.

Target-group: Technical and managerial staff of fisheries research (including aquaculture), fisheries administration and surveillance, and fish inspection.

C. Promotion of the production of fisheries produce supported (intended for the consumption of the population) (*Coordinating body: IDPPE*)

The Fisheries administration with greater capacity to promote the development of food production intended for domestic consumption (commercial artisanal fishing, use of the shrimp by-catch, and small scale aquaculture).

Target-group: IDPPE, INAQUA, EP and FFP technical and managerial staff.

Other beneficiaries: Artisanal fishermen involved in collecting the by-catch, artisanal fishermen and small scale fish farmers.

D. The institutional capacity for dealing with cross-cutting questions supported (*Implementing body: Ministry of Fisheries*)

Greater capacity in the Fisheries sector to deal with the spread of HIV/AIDS, to apply good governance practices, and to contribute towards greater gender equity and environmental sustainability.

Target-group: Technical staff and leaders of the sector

Other beneficiaries: Workers of the sector in general.

3.4 Outcomes by Sub-components

The activities required to produce each of the outcomes are indicated in the calendar in Appendix 3. However, details are added about the activities to be undertaken in cases where the simple listing of activities is not sufficiently explanatory.

A. Ministry of Fisheries component⁷ (*Coordinating and implementing body: Ministry of Fisheries*)

Outcome 1: *The Fisheries statistical system adjusted.* Although a Statistical Plan has been defined for the Fisheries sector covering the needs of the INE, this has not been adopted as the sector plan, and apart from this, it requires updating. It is now intended that, in the framework of an adjusted general statistical system, and under the coordination of the DNEP, this plan should be defined and implemented in a decentralised manner, thus meeting the current needs for statistical information in the various sub-sectors and institutions and in relation to the various aspects that reflect the evolution of the Fisheries sector.

⁷ In the case of this component, no sub-components are defined, but only outcomes. Those responsible for implementing each activity are shown in the appended Programme/Plan of Activities and Resources.

The implementation requires consultancy services by an international expert on fisheries statistics and local experts, covering the definition of a statistics master plan for the sector and assistance to implementation by the different institutions.

Outcome 2: *A capacity to formulate fisheries policies created.* A partnership between the MF and a foreign institution either university or research institution could be envisaged in order to create this capacity in the DNEP. Assistance to studies and training of local counterparts can be the main contribution from the Programme.

Outcome 3: *Efforts supported to solve conflicts of interest or failure to define responsibilities in common areas to Fisheries sector and other sectors.* Currently, there are areas on the Mozambican coast where there are overlapping interests on the part of various sectors of activity (oil and gas, mining, tourism, aquatic conservation areas, etc.). Integrated planning efforts of these specific areas may provide adequate alignment of the economic and socio-economic interests present. The Programme could assist in this process by giving priority to one of the most important ecosystem areas in the country, such as the Sofala Bank.

Outcome 4: *Implementation of the Fisheries Master Plan supported.* During the period of implementation of Programme (2009-13), activities related with monitoring and revision (if any) of the Fisheries Master Plan (2010-19) can be undertaken.

Outcome 5: *A strategy for general integration of the offshore tuna fishing economy into the national economy established.* The outcome will depend on a consultancy made by an international expert. Assistance to the eventual implementation of the strategy can also be considered.

Outcome 6: *Creation of the Fisheries Museum supported.* Presently, there is the risk that, without a museum, the fisheries heritage, consisting of fishing techniques, traditional gear still used in a recent past and fishing cultural traditions on the management of the resources are irremediably lost.

The Programme can assist in this process through the design and construction of the main building as well as on the organisation of the future museum.

Outcome 7: *Continuity given to actions to increase the technical and scientific qualifications of Fisheries administration staff and other agents.* The current Training Plan 2008-12 focus only on the needs of the Fisheries public administration. Considering the objectives and priorities of the new Fisheries Master Plan 2010-19 it is obvious that there are other needs in the fisheries sector that have to be met in order to achieve those objectives. Therefore, the preparation of a long term Human Resources Development Plan covering the entire sector should be considered as well as the role of the Fisheries School (vd. component C3, outcome 1).

The implementation requires consultancy services by an international expert with experience in fisheries and the funding of current and future third degree scholarships, including a master degree course in management of aquatic resources by a local university institution.

Outcome 8: *Financial and procurement management capacity strengthened in the institutions of the Fisheries administration system.* Financial and procurement management is often the reason for inefficient implementation of activities by the fisheries administration.

The Programme can assist in this area through the training of staff from the different institutions.

B. Fisheries Management Component (*Coordinating body: DNAP*)

B1. Fisheries Research Sub-component (*Implementing body: IIP*)

Outcome 1: *Assessment of the state of exploitation of the economically important fisheries resources supported.* Aid in this sphere has been given for almost three decades, with particular regard to the Sofala Bank shrimp resource. The objective here, as in other areas, should be to allow Mozambican researchers to undertake assessments for themselves. In the case of the Sofala Bank shrimp resource, the method of assessment selected is highly complex, requiring a significant effort in additional training in statistics and computer modelling but very probably without adding much to the results provided by other assessment models.

The strategy in producing this outcome is to reduce gradually assistance in assessing the Sofala Bank shrimp stock (eventually resuming methods adopted in the past), and strengthening and expanding assistance to other resources, transferring, whenever adequate, the knowledge accumulated over the years of assessing the Sofala Bank shrimp resource, and stepping up the training of the researchers involved.

Outcome 2: *Bio-economic assessment of fisheries supported.* The fisheries research strategy contains a guideline for the development by the IIP of capacity in the field of economic assessment of the most important fisheries.

The Programme can support this area through a combination of annual consultancy services and training of local counterparts.

Outcome 3: *Implementation of statistics on catches, effort and prices of first sale, and of biological sampling of artisanal fishing supported.* It will become part of the Fisheries Statistical System (part of outcome 1 of component A). The continued effort for the establishment of the artisanal fisheries statistics covers its expansion to new areas, the improvement of the methods of sampling in some of them (with particular attention to line fishing) and training of technical staff involved in the different phases.

Outcome 4: *A regular statistical system established on catches and the destination of the shrimp by-catch from the industrial and semi-industrial fleets.* It will also be part of the Fisheries Statistical System (part of outcome 1 of component A). Being defined as one of the means to increase the volume of fish supply to the population, there is an urgent need that accurate and regular data on shrimp by-catch is available. The definition and implementation of a sampling based system is therefore envisaged.

Outcome 5: *A capacity for regular monitoring at provincial level of the main artisanal fisheries created.* Within ten years of data available in some areas, it should be possible to start identifying the relationship between the levels of fishing effort and yields in the main fisheries, thus beginning to develop a tool to guide the management and development of artisanal fishing in sustainable ways. This work should be done in collaboration between the local delegations of the IIP and of the IDPPE (as proposed in PESPA). Due to the complexity of the statistical problems involved, this will initially involve foreign assistance for the IIP.

Outcome 6: *Research continued on the interaction between environmental parameters, exploitable resources and fishing activities.* The broadening of fisheries research responsibilities is an approach in ecosystem terms which assumes that the first step to be taken in this direction is to identify the relevant indicators for fisheries management. Although this has already begun in the context of the previous phase of the programme, more work is still needed to develop and select a smaller number of ecological, social and economic indicators, capable of guiding future monitoring and research.

However, questions concerning environmental changes go far beyond the traditional purposes of assessing fisheries resources. Currently we face climate change caused by human activity. The future impact that this will have on marine ecosystems, aquatic resources and fishing activity in Mozambique is still unknown. Thus the research must be prepared to identify the hydrographical processes and the most vulnerable species, and to include the potential impacts of global warming in the assessments and in the development and management of fisheries.

Outcome 7: *The analysis of data from research cruises for general assessment of fisheries resources in waters under Mozambican jurisdiction supported.* The analysis and dissemination of updated information on the potential/state of the resources can be supported by the Programme with priority to the information provided by the cruise of the *R/V Fridtjof Nansen* in 2007.

Outcome 8: *Implementation of the fisheries research strategy supported.* Monitoring and evaluation of the implementation can be supported by the Programme as well as the elaboration of short term or medium term plans.

Outcome 9: *Publicising knowledge of the state of exploitation of the resources and of the fisheries supported.* Seminars and other meetings under the frame of the fisheries management sub-system can be supported by the Programme.

B2. Fisheries Administration Sub-component *(Implementing body: DNAP)*

Outcome 1: *Efforts supported to review the industrial and semi-industrial fishing statistical systems.* Part of outcome 1 of component A.

Outcome 2: *Study of the division of management tasks and responsibilities between the central, provincial and district levels (including participatory management bodies) supported.* Faced with the decentralisation efforts under way, there is a need for full clarification of the structure and organisations of the fisheries administration at local level, particularly of the district fisheries administration, and of the bodies that ensure participatory management in various contexts. A study undertaken by local consultants, familiar with the Mozambican fisheries sector, could prove very useful in improving the efficiency and effectiveness of the fisheries administration in general.

Outcome 3: *The capacity for implementation and strategic assessment of the fisheries management plans supported.* In the planning phase, the assessment of a management strategy is used more frequently to compare possible alternative strategies to identify which are most likely to attain a series of general objectives. In the assessment of an adopted strategy, a simulation model is used to analyse the probable results, in very diverse spheres, such as the biological system, and the procedures for monitoring and managing the fishery (the management decisions system), covering the alterations in selected performance indicators so as to reflect the general management objectives in relation, for example, to foreign exchange earnings, the yield from the resources, employment, poverty alleviation or overall ecological objectives. The Programme can support training in this area, be it in the form of outside consultancies (short duration) or study visits and short periods of training in other fishery administrations.

Outcome 4: *Fisheries surveillance capacity in the EEZ strengthened.* Support for the development of the fisheries surveillance, with particular stress on hiring and operating a patrol ship, involves a substantial part of the Programme's resources. This action will continue beyond the duration of the Programme. With the intention of increasing the likelihood of its sustainability, a strategy has been considered of gradually passing the

operational costs to the Mozambican side. This strategy would be maintained in the event that the rented ship is replaced by a ship owned by Mozambique.

The Programme can assist the achievement of this outcome through the services of a resident expert during years 1-3 and half of the year 4. Assistance from a second consultant during part of year in the same period can also be considered.

Outcome 5: *The training of fishing inspectors continued.* This outcome will count with the participation of the resident expert (vd. outcome 4 of this component).

Outcome 6: *Expansion of regional cooperation supported.* It is important that Mozambique joins and participates actively in the regional organisations of the Indian Ocean and increases its cooperation in SADC.

Outcome 7: *The MCS data bank expanded and its management improved.* Among the activities required to produce the outcome, the set up of the fish inspection statistical subsystem should also be considered.

Outcome 8: *The possibility of a regional solution to the adoption of a VMS system in Mozambique analysed.* The Programme can support the studies to assess and design a regional solution concerning the Mozambican VMS system.

Outcome 9: *The holding of annual seminars on the state of exploitation of the aquatic resources and of the fisheries management supported.* This should be considered together with similar efforts from the fisheries research (vide subcomponent B1 of outcome 9) although targeting a more vast number of stakeholders involved in the management of fisheries.

B3. Fish Inspection Sub-component (Implementing body: INIP).

Outcome 1: *A long term strategic plan drawn up and under implementation providing the procedures and framework necessary for INIP to operate as an autonomous institution.* The Programme can assist the institution providing experts to undertake the activities required to produce this outcome, namely, institutional analysis to define the human resources, training, technical assistance and financial needs, more effective financial and procurement procedures that are compatible with the public administration legislation, conditions for the financial sustainability, mechanisms for the sustainable use of the equipment, etc.

Outcome 2: *INIP resources developed in order to provide more efficient and sustainable services.* The following activities should, in principle, be undertaken in order to produce this outcome: introduction of the use of a data base on licensing and certification in liaison with the laboratories for purposes of certification, establish the data base in a network between the centre and the delegations of INIP, update the operating manuals concerning laboratory procedures and services, draw up manuals concerning the maintenance and calibration of equipment, prepare procedures and the respective software package for application in the financial management of INIP, assist in operating the data base, improvement in laboratory conditions, establishment of a long term budget compatible with the procedures of the Mozambican public administration, introduce a stock control system and introduce a sulphite testing system to be used by the industry in order to meet the requirements of the EU.

The Programme can support the institution through technical assistance, training and purchase of services and equipment.

Outcome 3: *Capacities developed in the sphere of human resource management, financial management, inspection and laboratory services based on a training strategy.*

The following activities should, in principle, be undertaken in order to produce this outcome: promoting and training of INIP staff in accordance with the needs identified in the strategic plan, training of laboratory staff in procedures and applications, training of laboratory staff in maintaining and calibrating equipment, training in operating and maintaining the data base, improvement of the capacity of staff in the computer department, training in financial and procurement procedures, regular assessment of the results of training in the various sectors of INIP, and holding of refresher courses, training of leading staff at central level and of the delegations in administration, training of staff of the financial services in the new or current financial system in order to drive the financial process, holding short courses in the new procedures and legislation, on-the-job training in planning and long term budgetary forecasts, training of key INIP staff in English and further training derived from new developments/projects.

C. Promotion of the production of fisheries produce (intended for the consumption of the population) (Coordinating body: IDPPE)

C1. Artisanal Fishing Sub-component (Implementing body: IDPPE)

Outcome 1: Creation of an artisanal fisheries statistics subsystem supported. The Programme can assist IDPP on the current efforts for the creation of the artisanal fisheries statistical subsystem, particularly the monitoring of the well-being situation in the communities depending on artisanal fisheries for their subsistence, improvement of sampling in the main artisanal fisheries (lining, gillnetting), fish and fishing gear trade information and post-catching losses.

Outcome 2: Capacity of the IDPPE statistics and computer department strengthened. The Programme can support the IDPPE to strength its capacity of processing, analysing and disseminating information on the sub sector, both through technical assistance (assessment of current situation and design of computer units at central and provincial levels, development of software) and supply of equipment.

Outcome 3: The collection of the shrimp by-catch and the development of artisanal catches supported. The following activities are considered in order to produce this outcome: granting incentives linked with loans to build commercial artisanal boats for collection of by-catch and commercial artisanal boats to catch fish in the Sofala Bank through micro-credit institutions, support to negotiations/actions with shrimp industrial ship-owners to create more favourable conditions for use of the by-catch and experimenting alternative techniques for transferring, transport, processing and sale it.

Outcome 4: Expansion in the catch of fish promoted through alternative artisanal fishing methods. The following activities are considered in order to produce this outcome: experimentation and support in divulging techniques of trawling for pelagic fish within 3 nautical miles of the coast in the Sofala Bank (shrimp by-catch species), experimentation and support to the divulgation of techniques to catch tuna (FADs, drift and rod and live bait), particularly on the northern and southern areas.

Outcome 5: The value added to fisheries produce from in-land waters promoted. In order to achieve this outcome, the following activities are envisaged: pilot conservation units (cold stores, supply of ice) in areas where power supply is guaranteed (Massingir and other reservoirs and lakes), training on the operation and maintenance of these units and assistance to their operation during an initial period.

Outcome 6: Technical conditions of artisanal fishing boats improved in Cabo Delgado (Palma, M. Praia or Macomia), Nampula (Memba, Mongincual e Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi e Machanga) and

Inhambane (Govuro, Inhassoro and Vilanculo). The following activities are considered in order to produce this outcome: technical and organisational training of naval carpenters, improvement of the performance of traditional artisanal boats (hull, sailing), support to the introduction of mixed propulsion and engine, training of fishermen in the use of navigation and fish detection equipment (ecosound, GPS, radio) and training of fishermen in the maintenance and repairing of engines.

Outcome 7. *Artisanal fishing methods and gear improved in Cabo Delgado (Palma, M. Praia or Macomia), Nampula (Memba, Mongincual and Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi and Machanga) and Inhambane (Govuro, Inhassoro and Vilanculo).* In order to achieve this outcome, the following activities are envisaged: improvement of the selectivity of the commercial artisanal fishing gear, survey of fishing areas in the open sea for commercial artisanal fishing, technical and organisational training of fishermen and support to the strengthening and expansion of the fishing gear commercial network.

Outcome 8. *Artisanal processing methods and trading fisheries produce trade improved in Cabo Delgado (Palma, Mocímboa da Praia or Macomia), Nampula (Memba, Mongincual and Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi e e Machanga), Inhambane (Govuro, Inhassoro e Vilanculo) and Maputo (Marracuene and Maputo bay).* The following activities are considered in order to produce dissemination of improved traditional methods of fresh fish processing and conservation and support to the creation of ice making and use of fish isothermal boxes.

Outcome 9. *Storage and trading conditions of fisheries produce improved in Cabo Delgado (Palma, Mocímboa da Praia or Macomia), Nampula (Memba, Mongincual and Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi and Machanga) and Inhambane (Govuro, Inhassoro and Vilanculo).* In order to achieve this outcome, the following activities are envisaged: support to the creation of stores dedicated to salt/dry fish, construction of first sale fish markets, rehabilitation and construction of retail fish markets and support to the creation of cold storage capacity in fishing centres.

Outcome 10. *The extensionist network expanded.* The creation of new fisheries extension centres and the training of technical staff from the extension centres are considered in order to achieve this outcome.

C2. Aquaculture Sub-component *(Body implementing the sub-component: INAQUA)*

Outcome 1: *Preparation of draft complementary regulations for aquaculture supported.* The preparation of a legal framework for the aquaculture activities that has started in the previous phase of the Programme are concluded during the present phase. The following legal instruments are envisaged: norms on animal diseases and discharges of infected specimens in aquaculture, Norms on treatment and discharge of effluent in aquaculture, Norms on use of chemicals, feed and veterinary medicines in aquaculture undertakings, a national plan to prevent risks and diseases and framework regulations for commercial fish farming operations.

The Programme can support INAQUAA through specialised consultancy services provided by international and local experts.

Outcome 2: *An aquaculture statistical system designed and implemented.* Under the frame of the efforts to set up a fisheries statistical system, the Programme can assist INAQUA on the creation of the aquaculture statistical subsystem, with priority to small scale aquaculture.

Outcome 3: *The Chokwe aquaculture training station recovered and take-off of its operations supported.* This includes: studies and projects, rehabilitation of installations and tanks and support to training of trainers, extensionists and small producers. Following the decision of merging the Marracuene research and the Chokwe station, this institution will also support the development promotion efforts of INAQUA through the supply to farmers of juveniles with higher productivity.

Outcome 4: *INAQUA delegations supported in the four priority provinces (Niassa, Zambezia, Tete and Manica).* The Programme can support the creation of the delegations through equipment and assist their activities of promotion of small scale farming.

Outcome 5: The Project “Institutional Capacity Development for Sustainable Aquaculture in Mozambique” included into the Programme in the beginning of 2010.

C3. Training by the Fisheries School Sub-component *(Implementing body: EP):*

Outcome 1: *Mobile courses in HACCP (Hazard Critical Control Points Hygiene and Sanitation and Traceability held in the fishing and processing companies and for artisanal fishermen;*

The outcomes/activities of this component below will depend on a study to be undertaken by an expert to re-assess the role of the EP in the future. The following outcomes were formerly proposed by a consultancy sponsored by ICEIDA.

Outcome 2: *Conditions prepared to hold courses in the hygiene and health quality of products of fishing and aquaculture, and handling and processing;*

Outcome 3: *Courses held on preserving the quality of the various products of artisanal fishing in the different post-catch phases;*

Outcome 4: *Courses held on the precautions to be taken in small scale aquaculture.*

D. Cross-cutting questions Component⁸ *(Implementing body: Ministry of Fisheries)*

Outcome 1: *Actions to prevent HIV/AIDS supported.* Support for the work on HIV/AIDS in the institutions of the sector and in the fishing communities, in order to prevent the disease, focusing action on the institutional level. The MF could request from the National Council assessment of the work undertaken under the Programme, so that the parties could have an idea of its quality. The question of HIV/AIDS should be an integral part of the new Master Plan and of the policies to be developed for the sector.

Outcome 2: *A gender policy supported.* Gender aspects are focused upon in capacity building and in increasing skills as part of institutional development under the programme. But regarding the advice and consultancy services hired, more attention will be paid to gender. Furthermore, the question of gender should be an integral part of the new Master Plan and of the sector policies.

Outcome 3: *Practices of good governance supported.* Support under the Programme for implementation by the MP of its Plan of Action against corruption may include the following activities: the establishment of a special channel of communication for whistle-blowers, audits of a more forensic nature whenever suspicions of fraud arise in financing the Programme, and publicising in the Ministry’s portal lists of companies and ships licensed for commercial fishing.

⁸ In the case of this component, also no sub-components are defined but only outcomes. Those responsible for implementing each activity are indicated in the appended Programme Matrix.

Outcome 4: *The inclusion of environmental aspects in the policies and strategies of the sector supported.* As for the environment, training courses should be supported in the environmental area, and cooperation promoted between the various ministries involved and with the power and mandate in the various areas present. It would be important for a qualified consultant to provide assistance to the IIP and IDPPE in designing and monitoring the impact of the marine protection areas already established and which may be set up. The question of the environment should be an integral part of the new Master Plan and of the policies to be developed for the sector.

The activities required for producing each of the outcomes are shown in detail in Appendix 3.

3.5 Estimate of the resources required

The origin of the resources is as follows: 22.5 million USD from Norway, 4.32 million USD from ICEIDA and a minimum amount of around 1.2 USD from the Mozambican government. The Ministry of Fisheries is still making efforts to increase this contribution in order to respond to the phasing out of some of the activities in subcomponents B1 and B2. Table 3.5A summarises the resources needed to undertake the Programme, by component and sub-component. Table 3.5B summarises the resources needed for undertaking the Programme according to the nature of the expenditure.

Table 3.5A - Budget by components and sub-components of the Programme (in '000 USD)

Component/ Sub-component	Total	2009	2010	2011	2012	2013	%
A. Ministry of Fisheries	<u>2.950,0</u>	278,5	1.447,4	846,6	295,9	81,6	<u>11%</u>
B. Fisheries management	13.5300,0	2.291,5	5.549,0	3.384,1	1.826,8	478,5	49%
B1. Fisheries research	1.030,0	65,0	348,3	274,3	192,7	149,8	4%
B2. Fisheries administration	11.400,0	2.136,5	4.900,8	2.824,9	1.384,1	153,8	41%
B3. Fish inspection	1.100,0	90,0	300,0	285,0	250,0	175,0	4%
C. Promotion of development	<u>9.320,0</u>	20,0	2.281,0	3.702,3	2.776,4	540,4	<u>34%</u>
C1. Artisanal fisheries	3.450,0	0,0	985,0	1.075,0	905,0	485,0	12%
C2. Aquaculture	5.020,0	20,0	987,0	2.351,3	1.606,4	55,4	18%
C3. Training by EP	850,0	0,0	309,0	276,0	265,0	0,0	3%
D. Crosscutting questions	<u>400,0</u>	0,0	100,0	100,0	100,0	100,0	<u>1%</u>
Management of Programme	300,0	35,0	50,0	40,0	140,0	35,0	<u>1%</u>
Total donors	<u>26.500,0</u>	<u>2.625,0</u>	<u>9.427,4</u>	<u>8.073,0</u>	<u>5.139,1</u>	<u>1.235,5</u>	95%
Total Government	<u>1.200,0</u>	<u>0,0</u>	<u>300,0</u>	<u>300,0</u>	<u>300,0</u>	<u>300,0</u>	5%
OVERALL TOTAL	<u>27.700,0</u>	<u>2.625,0</u>	<u>9.727,4</u>	<u>8.373,0</u>	<u>5.439,1</u>	<u>1.535,5</u>	<u>100%</u>
% per year	<u>100%</u>	9%	35%	30%	20%	6%	

Table 3.5B - Budget according to the nature of Programme expenditure (in '000 USD)

Nature of expenditure	Total	2009	2010	2011	2012	2013	%
Studies and consultancies	3.352,0	217,5	1.682,2	780,2	440,4	231,7	12%
Training	6.075,4	530,5	1.883,5	1.847,9	1.340,7	472,8	22%
Equipment	6.242,0	92,0	2.650,0	2.257,0	1.228,0	15,0	23%
Construction	4.667,0	0,0	1.344,0	1.853,0	1.365,0	105,0	17%
Funds for credit	1.210,0	0,0	255,0	390,0	380,0	185,0	4%
Others*	4.653,6	1.750,0	1.562,7	904,9	245,0	191,0	17%
Management of Programme	300,0	35,0	50,0	40,0	140,0	35,0	1%
Total contribution donors	<u>26.500,0</u>	<u>2.625,0</u>	<u>9.427,4</u>	<u>8.073,0</u>	<u>5.139,1</u>	<u>1.235,5</u>	96%
Total contribution Government	<u>1.200,0</u>	<u>0,0</u>	<u>300,0</u>	<u>300,0</u>	<u>300,0</u>	<u>300,0</u>	4%
OVERALL TOTAL	<u>27.700,0</u>	<u>2.625,0</u>	<u>9.727,4</u>	<u>8.373,0</u>	<u>5.439,1</u>	<u>1.535,5</u>	<u>100%</u>
% per year	<u>100%</u>	9%	35%	30%	20%	6%	

* Mainly running costs during the launching phase of a new activity. The main contribution comes from the running costs of the patrol vessel which are scaled down along the duration of the Programme.

3.6 External factors

At the level of the immediate objective

The external factors identified at the level of the immediate objective are the following:

- Stability in the international market, namely with regard to the prices of fisheries produce and of oil;
- Greater importance granted by the Government to the role of fisheries in reducing rural poverty;
- The rehabilitation in general and development of social and economic infrastructures pursued, covering the fishing districts;
- Measures to stabilise the trained staff taken;
- Stability in the system of granting funds for the running costs of the Fisheries administration.

At the level of the Ministry of Fisheries component

The external factors identified at the level of the Ministry of Fisheries component are the following:

- Growing focus on policies, planning, legal responsibilities and coordination on the part of the Ministry of Fisheries;
- No delays that compromise the conclusion of the activities envisaged in the programme;
- New financial and purchasing systems operating effectively, with minimum delays.

Those most directly linked to the *outcomes* of the Ministry of Fisheries component are the following:

- Staff recruited with the required qualifications and in good time;
- No delays that compromise finalising activities envisaged in the programme;
- Receptiveness on the part of the interested sectors in relation to the interests of the Fisheries sector and recognition of the importance of fishing;
- The building of the museum takes place without delays;
- The funds not covered by the present programme are raised in the amount and at the time required.

At the level of the Fisheries Management component

The external factors identified at the level of the Fisheries Management component are the following:

- Adequate coordination of efforts between DNAP, provincial directorates and IDPPE as regards their district actions;
- Receptiveness of the district authorities for the organisation of fisheries administration;
- Stability of trained staff;
- Stability of technical assistance.

Those most directly linked to the *Fisheries Research Sub-component/Outcomes* are the following:

- Staff required to the new activities induced by the Programme recruited in good time and with the required qualifications;

- Adequate cooperation on the part of agents of the sector involved in supplying data to researchers;
- Stability of the researchers trained;
- Funds from the state budget available on time to cover the activities generated by the programme and gradually transferred to the Mozambican side;
- Building work takes place without delays;
- Support and commitment from the staff of the institution in general.

Those most directly linked to the *Fisheries Administration Sub-component/Outcomes* are the following:

- Interlocutors at local level interested and able to intervene;
- Staff recruited with the required qualifications and in good time;
- An adequate consultant chosen from the region, with knowledge of the regional and international tuna industry;
- The funds not covered by the present programme are raised in the amount and at the time required;
- Greater priority to regional fisheries cooperation;
- Stability in the corps of agents involved in fisheries surveillance;
- Interlocutors with the capacity and availability required to operate the data bank at local level;
- Receptiveness on the part of countries in the Indian Ocean region towards the cooperation activities proposed by Mozambique.

Those most directly linked to the *Fish Inspection Sub-component/Outcomes* are the following:

- Adequate collaboration on the part of ship-owners and industry;
- Support and commitment by the staff of the institution in general;
- Stability of the staff trained.

At the level of the Component of the Promotion of Fisheries Produce (intended for the consumption of the population)

The external factors identified at the level of the Promotion of the Development of Fisheries Produce component are the following:

- Improved availability of information for monitoring food production;
- A gradual improvement maintained in the living conditions of the population in general, with a consequent increase in their purchasing power;
- Efforts continued to bring infrastructures to the rural areas where the small scale fisheries and aquaculture producers are located;
- A table of relationship defined in the field of fish farming between the Ministries of Fisheries and of Agriculture.

Those most directly linked to the *Artisanal Fishing Sub-component/Outcomes* are the following:

- Staff recruited in good time and with the required qualifications;
- Stability of the staff trained;
- The funds not covered by the present programme are raised in the amount and at the time required;
- Receptiveness on the part of potential interested parties towards the activities promoted.

Those most directly linked to the *Small Scale Aquaculture Sub-component/Outcomes* are the following:

- Staff recruited with the required qualifications and in good time;
- Stability of the staff trained;
- Adequate articulation in implementation with bodies of the Ministry of Agriculture at provincial and district level;
- The funds not covered by the present programme are raised in the amount and at the time required;
- Receptiveness on the part of potential interested parties towards implementing fish farming activities.

Those most directly linked to the *Training by the Fisheries School Sub-component/Outcomes* are the following:

- Adequate collaboration on the part of ship-owners and processing industry;
- Support and commitment by the staff of the institution in general;
- Stability of the staff trained;
- Adequate coordination with INIP and INAQUA.

At the level of the Cross-cutting Questions Component

The external factors identified *at the level of the Cross-cutting Questions component* are the following:

- Adequate cooperation from the public and private entities in the sector;
- Interlocutors at local level with the required capacity and availability to undertake activities related with HIV/AIDS;
- Receptiveness towards including gender questions in policies, strategies and decisions at the level of the Fisheries administration;
- Receptiveness towards including questions tending to good governance in all policies, strategies and decisions at the level of the Fisheries administration;
- Receptiveness towards including questions concerning the environment in all policies, strategies and decisions at the level of the Fisheries administration and with regard to the sector in general.

The external factors identified at the level of activities are shown in the plan of activities in Appendix 3.

4. Effects expected and Sustainability

4.1 Effects expected

By the end of the project it is expected that the Ministry of Fisheries will have acquired a greater capacity to accompany the evolution of the sector, particularly through the availability of statistical information covering all the most pertinent activities and aspects, a greater capacity to undertake studies and to establish policies and strategies in the various fields. As a result of this greater knowledge and capacity to define interventions that promote development, the actions may acquire greater efficiency and effectiveness, through a more equitable distribution of resources amongst the sub-sectors and across the territory.

Fisheries management will attain greater articulation between its components, under the growing initiative of the fisheries administration, notably through holding annual seminars involving the various bodies of the public administration and representatives of the productive agents. This assumes that fisheries research expands the assessment of the state of exploitation of all the economically most important resources, and gradually extends economic assessment to these fisheries, issuing clear and timely recommendations with a view to the management of the resources and fisheries.

On the other hand, the fisheries administration will broaden its knowledge of the fisheries by strengthening its monitoring and surveillance activities, particularly through the regular use of patrol boats and aircraft gradually covering all the waters under national jurisdiction, which will ensure that the management measures adopted are increasingly based on the knowledge of the real state of the resources and of the fisheries.

The inspection of fisheries produce will be strengthened, and will expand its quality control capacity. Exports will continue to be the main focus of its attention, although gradually extending its action to other areas.

The promotion of the sector's development, as regards the production of fisheries produce for domestic consumption, will gradually open new opportunities in the areas of using by-catch from shrimp caught by the industrial fleet (despite the reduction envisaged with the introduction of measures to exclude the by-catch), of fishing on the high seas for species traditionally caught, but also for tuna fished through small scale methods, and of expanding aquaculture associated with agricultural activities in the countryside. Although these actions must be undertaken by private operators, it is expected that strengthening the capacity to promote these activities will result in incremental production of importance for local levels of protein consumption. Pilot actions where there already exist significant levels of surplus may lead to the creation of value added and contribute to defining ways of promoting the value chain.

Finally, through strengthening the public administration in resources and knowledge, progress may be achieved in the sector in general in the field of awareness about HIV/AIDS prevention, greater gender equity, greater awareness of the importance of good governance for economic and social development and greater inclusion of environmental questions in the policies and action of the Fisheries sector.

4.2 Indicators

Indicators at the level of the development objective

The indicators at the level of the development objective are those which figure at the level of the immediate objective of PDP 2009-18.

Indicators at the level of the immediate objective

The indicators at the level of the immediate objective of the Programme, and their respective sources of verification, are the following:

- (1) The capacity to produce fisheries produce for domestic supplies through artisanal fishing and small scale aquaculture increased and diversified as a result of the programme (*Source of verification*: Sector statistics published by MP/DNEP and national statistics published by the INE);
- (2) An information system available in the Fisheries sector providing data for monitoring and serving as a basis for defining plans, programmes and development projects (*Source of verification*: Sector statistics published by MP/DNEP);
- (3) The new contribution of the Fisheries sector to the balance of payments ascertained regularly as from Year ... (*Source of verification*: Sector statistics published by MP/DNEP and national statistics published by the INE);
- (4) A human resources development programme, covering not only the institutions of the Fisheries public administration, but also seeking to train staff in the various productive areas, drawn up on the basis of data provided by the sector statistical plan (*Source of verification*: Annual report of MP/DRH and monitoring reports of the human resources development programme);
- (5) The fisheries administration at provincial and district levels structured functionally, with the respective competences and forms of articulation defined between the provincial directorate, delegations of institutions of the sector and the district administration (*Source of verification*: Annual report of the MP and annual reports of the DPPs).

Indicators at the level of the Ministry of Fisheries component

The Indicators at the level of the Ministry of Fisheries component and the respective sources of information are the following:

At the level of the component:

- (a1) A unit formulating policies and strategies operating in the MP providing methodological support in drafting policies and strategies for the fisheries administration (*Source of verification*: Statutes of the MP and reports of the DNEP);
- (a2) Fisheries sector statistical yearbook published and available for the public at large as from Year ... (*Source of verification*: Corresponding documents issued by the MP, directorates or subordinate institutions);
- (a3) Fisheries Master Plan under implementation, subject to regular monitoring and serving as a reference point for all policy and strategic documents and planning instruments adopted (*Source of verification*: Own publications of the DNEP/MP);
- (a4) Reduction in conflicts of interest or lack of clear responsibilities in one and the same area between the Fisheries sector and other sectors (oil and gas, tourism, aquatic reserves and mining) (*Source of verification*: Annual reports of the MP and interviews with other sectors);

At the level of the outcomes:

- (R1) Statistical yearbook of the sector published as from Year ... with gradual increased information in following years up to the end of the programme (*Source of verification*: Annual reports of the DNEP and the yearbooks themselves);

- (R2.1) A unit to formulate policies and strategies and various studies set up by Year ... (*Source of verification*: Study documents and reports of the DNEP);
- (R2.2) The unit to formulate policies and strategies and various studies with two technical staff trained by Year ... (*Source of verification*: Ibid);
- (R3) Protocols of inter-sector understanding on conflicts of interest negotiated and in force by the end of the programme (*Source of verification*: Agreed documents);
- (R4) Regular Fisheries Master Plan monitoring reports, serving as a basis for drawing up the PES and other sector development plans as from Year ... (*Source of verification*: Fisheries Master Plan monitoring reports);
- (R5) An industrial tuna fishing fleet based in Mozambique as from Year ... and at least one tuna processing unit operating or under implementation by the end of the programme (*Source of verification*: Annual reports of the DNEP and direct verification);
- (R6.1) Architecture project of the Fisheries Museum completed by Year ... (*Source of verification*: Architecture contract and project documents);
- (R6.2) The Fisheries Museum main building finalised by the end of Year ... and the exhibits organised by the end of the programme (*Source of verification*: Direct verification);
- (R7) At least ... licentiate, ... master and ... doctoral degrees awarded during the life span of the programme (*Source of verification*: Annual DRH reports);
- (R8) Administration and finance staff of all the institutions of the fisheries administration trained in project financial management and procurement by Year ... (*Source of verification*: Reports of the DAF/MP and direct verification of the tasks undertaken by the institutions).

Indicators at the level of the Fisheries Management component

The indicators at the level of the *Fisheries Management component* and their respective sources of verification are the following:

- (b1) Management recommendations, with evidence of the gradual inclusion of knowledge of environmental factors, regularly issued for the main fishery resources during the entire duration of the programme, converted into management measures (*Source of verification*: Specific IIP reports);
- (b2) Recommendations resulting from bioeconomic assessment of the main fisheries, gradually available during the period of the programme, converted into management measures (*Source of verification*: Specific IIP reports);
- (b3) Seminars on the management of aquatic resources and of fisheries held annually as a joint initiative of DNAP and IIP and with the participation of representatives of the entire Fisheries administration and of the productive sector (*Source of verification*: Reports of the seminars);
- (b4) Surveillance capacity covering the fishing areas most vulnerable to IUU activities and gradually expanded to the entire EEZ (*Source of verification*: Surveillance and monitoring reports);
- (b5) Interconnections and guidelines defined on the organisation of local bodies between central, provincial and district levels (*Source of verification*: Legal diplomas);
- (b6) Participatory management bodies operating in all coastal provinces and in at least ... districts by the end of the programme (*Source of verification*: Reports of the DNAP and sessions minutes).

At the level of outcomes of the Fisheries Research sub-component:

- (R1) Assessments made of the state of exploitation of the main economically important resources: annual for Sofala Bank shrimp, every two years for gamba (as from Year 1) and for demersal line species, kapenta and Maputo Bay magumba (as

from Year 2) and issuing the subsequent management recommendations (*Source of verification*: Annual IIP reports and specific assessment reports);

(R2) Assessments made of the economic state of the most important fisheries: annual for the Sofala Bank industrial shrimp fishery, and every two years for “gamba” (as from Year 1) and for demersal line species, kapenta and Maputo Bay magumba (as from Year 2) and issuing the subsequent management recommendations (*Source of verification*: Annual IIP reports and specific assessment reports);

(R3) Statistics regularly available about the by-catch from the industrial shrimp fleet as from Year ... (*Source of verification*: Annual statistical yearbook referring to research);

(R4) Ibid (Ibid);

(R5) Reports on the situation of artisanal fisheries by districts of the coastal provinces, produced annually for provinces as from Year ... and for provinces as from Year ... (*Source of verification*: Annual IIP reports and specific assessment reports);

(R6) Evidence of the inclusion of results from environmental and climate change research in the assessments of the state of exploitation of the most economically important resources (*Source of verification*: Reports on the assessment on the status of the resources and of the fisheries);

(R7) Information from the cruise undertaken by the R/V Dr. Fridtjof Nansen in 2007 available as from Year ... (*Source of verification*: Annual IIP reports and specific report);

(R8) Result of the independent evaluation of the implementation of the research strategy being at least satisfactory (the terms of reference of the consultancy should expressly request this indication) (*Source of verification*: Report of the independent evaluation);

(R9) Active participation in the annual seminars on the state of research and of management of the aquatic resources of Mozambique (*Source of verification*: Reports from the seminars and annual reports of DNAP and IIP);

At the level of the outcomes of the *Fisheries Administration sub-component*:

(R1) Statistical yearbook on industrial and semi-industrial production published as from Year ... with growing information in following years up to the end of the programme (*Source of verification*: Annual reports of the DNAP and the yearbooks themselves);

(R2.1) Main fishing districts with a clear mandate regarding to the licensing ceilings for the main artisanal fisheries and to artisanal fishing management competences by Year... in the coastal provinces and by Year... in the remainder (*Source of verification*: Legal diploma fixing the ceilings and competences at provincial and district levels);

(R2.2) Participatory management bodies operational in the coastal provinces and Niassa and Tete provinces by Year... and in the other provinces by Year.... providing recommendations to decision-making levels on fisheries management and development promotion (*Source of verification*: Annual DNAP and local bodies report);

(R3.1) Development/management plans being applied to the economically most important fisheries: integrated plan for the Sofala Bank shrimp fisheries as from Year ...; line demersal species fisheries as from Year ...; *gamba* and accompanying special industrial fishery as from Year ...; and deep water lobster fishery as from Year ... (*Source of verification*: Document of the development/management plans and DNAP monitoring reports);

(R3.2) The fisheries administration regularly monitoring the fisheries with defined development/management plans, noticing the degree of convergence for the indicators defined and the corrective measures deemed necessary (*Source of verification*: Document of the development/management plans and DNAP monitoring reports);

(R4.1) An annual average of ... days of patrol missions at sea in Years 1-2 and.... in Years 3-4 (*Source of verification*: Annual reports of the DNAP);

- (R4.2) An average of ... days of aerial patrol missions in Years 1-2 and.... in Years 3-4 (*Source of verification: Ibid*);
- (R4.3) A national patrol vessel capable of covering the EEZ at the service of surveillance operational as from Year ... (*Source of verification: Acquisition documents, direct verification*);
- (R4.4) A research unit operational in the DNAP as from Year ... (*Source of verification: Annual reports of the DNAP and direct verification*);
- (R5) ... supervision agents trained by Year ... and a further ... by Year ... (*Source of verification: Annual reports of the DNAP*);
- (R6.1) Mozambican membership of all the Indian Ocean regional organisations achieved as from Year ... (*Source of verification: Annual reports of the DNAP and membership documents*);
- (R6.2) Mozambique becoming the headquarters of the MCS regional coordinating unit for the western Indian Ocean by the end of the programme (*Source of verification: Reports of the DNAP and regional meetings documents*);
- (R6.3) A new approach to VMS based on regional cooperation designed by Year ... (*Source of verification: Report of the study and agreements eventually signed*);
- (R7) The fisheries administration data base accessible from all the sector's institutions located in Maputo city and Nampula by Year ..., Sofala and Maputo province by Year ... and the provinces of by Year ... (*Source of verification: Reports of the DNAP and direct verification*);
- (R8) Study on the possibility of a regional solution to the adoption of a VMS system in Mozambique held (*Source of verification: Study report*);
- (R9) Annual seminars held on the state of research and of the management of aquatic resources in Mozambique (*Source of verification: Seminar and annual reports of DNAP and IIP*).

At the level of outcomes of the *Fish Inspection sub-component*:

- (R1.1) Studies held referring to (i) the organisation of the institution and respective technical and financial management capacities required for its operation, (ii) improvement of the process of fixing service fees, procurement and use of the institution's income, (iii) fixing service fees, (iv) possibility of increasing income from additional services, (v) maintenance and instrument calibration system, (vi) medium and long term technical assistance needs, (vii) external assessment of the institution's performance, (viii) financial management system, (ix) training needs at all levels of the institution and (x) identification of forms of cooperation with other national institutions in the fields of training and services (*Source of verification: Consultancy reports and eventual agreements and/or legal diplomas resulting from them*);
- (R1.2) A strategic plan approved and under implementation as from Year ... (*Source of verification: Plan document and annual executive plans*);
- (R2.1) Reports generated through the data base available as from Year ... (*Source of verification: Direct verification*);
- (R2.2) Reports generated through the data base referring to inspections in all delegations available within seven days after the inspection as from Year ... (*Source of verification: Direct verification*);
- (R2.3) Current routines and services to be sustained, particularly with regard to waste control, heavy metals and environmental contaminants, procedures on water analysis and indexed method for rapid assessment of local species as from Year ... (*Source of verification: Reports of the INIP and direct verification*);
- (R2.4) A manual for elementary maintenance and calibration of laboratory tools available and in use as from Year ... (*Source of verification: Manual and direct verification*);
- (R2.5) A manual of financial procedures with the respective software available and in use as from Year ... (*Source of verification: Manual, software and direct verification*);

- (R2.6) Biannual budgets drawn up and in use from Year ... (*Source of verification:* Documents drawn up);
- (R2.7) A computerised system for controlling stocks, orders and the respective budgeting available and in use as from Year ... (*Source of verification:* direct verification);
- (R2.8) The industry tests for sulphites through the use of appropriate kits resulting from the initiative of the institution (*Source of verification:* direct verification);
- (R3.1) Technical training promoted for ... administrators, ... planners, ... staff managers and ... laboratory agents in Years ..., ..., ... and ..., respectively (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.2) regular training and at all laboratory levels ... agents in focused aspects before and after external proficiency tests (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.3) ... laboratory agents trained in basic maintenance in each laboratory in Year ... (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.4) ... computer staff trained in designing data bases and programming, management of servers, security copies, and management of the FileMaker server (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.5) ... administrative agents trained in short courses in administrative and procurement procedures in Year ... (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.6) ... agents trained annually in organisational development, planning through projects, long term budgeting and drafting of reports (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.7) ... financial staff trained in short courses in the financial system and in procurement methods and procedures in Year ... (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.8) Three-day courses for updating in public administration legislation and legal procedures held every year in all delegations (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.9) Long term projections available annually on costs, budgetary needs, and fixing of prices for services as from Year... (*Source of verification:* Documents drawn up);
- (R3.10) ... staff of the institution trained in English in the country and ... senior staff members in technical English outside the country (*Source of verification:* Reports of INIP and interviews with trainees);
- (R3.11) Courses held derived from other projects (*Source of verification:* Reports of INIP and interviews with trainees and the agencies sponsoring the other projects).

At the level of the component of Promotion of the Production of Fisheries Produce (intended for the consumption of the population)

The indicators at the level of the *Promotion of the of Fisheries Produce component* are the following, with their respective sources of verification:

- (c1) Increased internal supply of fisheries produce from artisanal fishing, the use of the by-catch from the shrimp industrial fleet, and small scale aquaculture, as a result of developing the production for domestic consumption induced by the programme until its end of its life span (*Source of verification:* Sector statistics on artisanal catches, use of the shrimp by-catch and aquaculture).

At the level of the outcome of the *Artisanal Fishing sub-component*:

- (R1.1) A sub-sector statistical plan for artisanal fishing drawn up and under implementation by Year ... (*Source of verification:* Document of the sub-sector statistical plan);

(R1.2) Technical norms established for the various statistical components by Year ... in relation to ... and by Year ... in relation to (*Source of verification*: Documents of the technical statistical norms);

(R1.3) An artisanal fishing statistical yearbook published as from Year ... (*Source of verification*: The statistical yearbook itself);

(R2) Capacity created for computerised treatment of statistical data in the IDPPE by Year ... (*Source of verification*: IDPPE reports and direct verification);

(R3) ... new artisanal boats to make use of the by-catch from the industrial shrimp fleet, arising as a result of the support provided and a further ... by the end of the programme (*Source of verification*: IDPPE annual reports);

(R4) Artisanal boats dedicated to fishing small pelagic, demersal and tuna species in operation by the end of the programme (*Source of verification*: Ibid);

(R5) ... pilot units providing value added to fisheries produce from inland waters set up until Year ... and another ... until the end of the programme (*Source of verification*: Ibid);

(R6.1) ... work kits supplied to carpenters in the northern and central provinces and Inhambane in Year and ... and in Years ..., ... and (*Source of verification*: IDPPE reports and direct verification);

(R6.2) ... training courses for carpenters in the northern and central provinces and Inhambane in Year and ... and in Years ..., ... and (*Source of verification*: Ibid);

(R6.3) ... training courses for fishermen on navigation, security and fishing equipment and ... on maintenance and repairing of engines in the northern and central provinces and Inhambane in Year and ... and in Years ..., ... and (*Source of verification*: Ibid);

(R6.3) 10 improved traditional boats built with the technical assistance and credit provided by micro credit operators (*Source of verification*: Ibid);

(R7.1) 5 fishing gear with improved selectivity tried and transferred to fishermen in the northern and central provinces and Inhambane during the duration of the Programme (*Source of verification*: IDPPE reports and direct verification);

(R7.2) New fishing areas surveyed and information transferred to commercial artisanal fishermen in the northern and central provinces and Inhambane during the duration of the Programme (*Source of verification*: Ibid);

(R7.3) 5 training courses on improved fishing techniques and professional organisation of fishermen held in the northern and central provinces and Inhambane during throughout the Programme (*Source of verification*: Ibid);

(R7.4) Commercial network of fishing gear expanded through credit provided by micro credit operators (*Source of verification*: Ibid);

(R8.1) 5 training courses for fishermen on improved processing and conservation techniques in 5 coastal provinces during the duration of the Programme (*Source*: Ibid);

(R8.2) 5 training courses for fishermen on improved handling, processing and conservation techniques of fresh fish in 5 coastal provinces throughout the Programme (*Source of verification*: Ibid);

(R8.3) Ice production and use of isothermal boxes expanded through credit provided by micro credit operators in 5 coastal provinces throughout the Programme (*Source of verification*: Ibid);

(R9.1) 3 stores dedicated to salt/dry fish built by the Programme in the northern and central provinces and Inhambane throughout the Programme (*Source of verification*: Ibid);

(R9.2) 5 first sale fish markets built by the Programme in the northern and central provinces and Inhambane throughout the duration of the Programme (*Source of verification*: Ibid);

(R9.3) 4 retail fish markets built by the Programme in the northern and central provinces and Inhambane throughout the duration of the Programme (*Source of verification*: Ibid);

- (R9.4) 5 cold stores located in fish retail markets and fishing centres in the northern and central provinces and Inhambane through credit provided by micro credit operators throughout the duration of the Programme (*Source of verification: Ibid*);
- (R10.1) 2 new extensionist centres created throughout the first two Years of the Programme (*Source of verification: Ibid*);
- (R10.2) ... training courses for extensionists held in 5 coastal provinces during the throughout of the Programme (*Source of verification: Ibid*).

At the level of outcomes of the *Small Scale Aquaculture sub-component*:

- (R1.1) New complementary legislation for aquaculture (animal diseases and discharges of infected specimens, treatment and discharge of effluent, use of chemical productions, feed and veterinary drugs, framework for commercial aquaculture operations) drawn up and in force by the end of Year (*Source of verification: Legal diplomas published in the Boletim da República, the government official newspaper*);
- (R1.2) A national plan to prevent risks and diseases in aquaculture drawn up and in force as from Year... (*Source of verification: Plan document*);
- (R.2) A statistical yearbook on aquaculture published by the end of the programme (*Source of verification: INAQUA activity reports and the yearbook itself*);
- (R3.1) ... instructors trained at the Chokwe training station by Year ... (*Source of verification: INAQUA activity reports*);
- (R3.2) ... extensionists and small scale fish farmers trained by Year ... and a further ... by Year ... (*Source of verification: Ibid*);
- (R3.3) The Chokwe station supplying ... juveniles for fish farmers by Year ... and ... by Year (*Source of verification: Ibid*);
- (R4) ... extension missions to rural communities held by Year ... and a further ... by Year ... (*Source of verification: Ibid*);
- (R5) The Project “Institutional Capacity Development for Sustainable Aquaculture in Mozambique” included into the Programme in the beginning of 2010.

At the level of outcomes of the *Training by the Fisheries School sub-component*:

- (R1) Mobile courses in HACCP (Hazard Critical Control Points Hygiene and Sanitation and Traceability held in the fishing and processing companies and for artisanal fishermen
- (R2) A study on the future role of the Fisheries School and the training programme to be held available in Year 1 (*Source of verification: report by the consultant*);
- (ATT: *The following courses will be subject to confirmation after a study is held in Year 2 on the Fisheries School response to the needs of the sector*);
- (R3.1) 8 “classical” courses held between Years 2 and 4, with 20 trainees each, for managers, processing staff, quality controllers and extensionists with a duration of 5-6 days (*Source of verification: FS reports and interviews with trainees*);
- (R3.2) 18 “express” courses held between Years 2 and 4, with 20 trainees each, lasting 2-3 days each, for extensionists and commercial artisanal fishermen (*Source of verification: FS reports and interviews with trainees*);
- (R3.3) 20 “basic” courses held throughout the length of the programme with 20 trainees each, lasting 1-2 days, for artisanal fishermen with the support of the extensionists already trained (*Source: of verification FS reports and interviews with trainees*);

(R4.1) 20 “express” courses held throughout the length of the programme with 20 trainees each, lasting 2-3 days each, for extensionists and commercial artisanal fishermen (*Source of verification*: FS reports and interviews with trainees);

(R4.2) 20 “basic” courses held throughout the length of the programme with 20 trainees each, lasting 1-2 days, for artisanal fishermen with the support of the extensionists already trained (*Source of verification*: FS reports and interviews with trainees);

(R5.1) 8 courses held between Years 2 and 4, with 20 trainees and lasting 5-6 days each, for extensionists and small scale fish farmers (*Source of verification*: FS reports and interviews with trainees);

(R5.2) 8 “basic” courses held throughout the programme, with 20 trainees each and lasting 2-3 days, for small scale fish farmers, with the support of the extensionists already trained (*Source of verification*: FS reports and interviews with trainees).

Indicators at the level of the Cross-cutting Questions component

The following are the indicators for the Cross-Cutting Questions component and the respective sources of verification:

(d1) A plan of activities to divulge the risks of HIV/AIDS in the fisheries sector drawn up and under implementation as from Year ... (*Source of verification*: Reports from the DRH/MP and from the consultant);

(d2.1) Current gender distribution percentage at the various professional and leadership levels of public administration improved in favour of women during the life span of the programme (*Source of verification*: Human resource statistics of the DRH);

(d2.2) A positive evolution in women’s representation in fisheries’ participatory management bodies and in grass roots community organisations (*Source of verification*: Ibid);

And also at the level of the *outcomes*:

(R1) A plan of activities to divulge the risks of HIV/AIDS in the fisheries sector drawn up and under implementation as from Year ... (*Source of verification*: DRH/consultant surveys);

(R2.1) Gender situation in the fisheries sector subject to regular monitoring throughout the programme period (*Source of verification*: Human resource statistics of the DRH);

(R2.2) All policy documents and development plans containing references to objectives and strategies seeking greater gender equity within the fisheries sector (*Source of verification*: Direct verification through the documents mentioned);

(R3) All illegalities detected in the Fisheries administration duly investigated and channelled to the relevant bodies for decision during the life span of the programme (*Source of verification*: Documents of the Ministry of Fisheries General Inspectorate);

(R4) Environmental questions contained in all policy and strategic documents under application in the Fisheries sector (*Source of verification*: Direct verification through the policy documents and development plans).

4.3 Sustainability

The factors that can influence the sustainability of the Programme – at least for some of general nature – should be found in the future PDP 2010-19.

More specifically regarding to those that are linked to the current Programme, the following have been identified:

- Continuation of international cooperation for the development of the sector without sudden alterations;

- Gradual inclusions of the actions generated by development assistance and fisheries management in the state budget for the sector;
- Continued general economic growth and social and economic stability;
- Stability of the staff trained.

One notices that regarding to all the activities included in the Programme that are repeated throughout the years of its duration, a gradual reduction in expenditure has been made. For large items of expenditure, and for those repeated throughout the cooperation between Norway and Mozambique, wherever possible the cost supported by the Programme budget has fallen from 100% in Year 1 to 40% in Year 4 or 5.

In most cases, this decline should correspond to increased coverage by the state budget, and should thus merit permanent attention, particularly in the annual exercise of drawing up the PES and its respective budget.

5. Programme Organisation and Management

As in the previous phase, the new Programme requires coordination efforts not merely as regards its implementation, but also in relation to making it compatible with the Economic and Social Plan of the sector for each year as well as with the sponsoring countries objectives.

This coordination should be promoted by the Ministry of Fisheries, as the body that receives the assistance and the political organ responsible for the Mozambican Fisheries sector. Thus, the organisation, management and supervision of the Programme should be borne by the Ministry of Fisheries, for which it relies on the technical support of the National Directorate of Fisheries Economics (DNEP).

Essentially, the organisation and management of the Programme will continue, with small adjustments, in the forms established for the first phase. However, the greater size of the Programme, the fact that it includes Norwegian and Icelandic cooperation, and the lessons drawn from implementation of the first phase, particularly from the discussions held during the reviews in April and December 2008, has motivated some reflection and some adjustments of detail intended to improve its efficiency and effectiveness.

Programme Coordination Unit

During the first phase of the Programme, for most of the time, it was not possible to employ a manager, a position that was envisaged in the proposed organisation of the programme. Thus the coordinator appointed was absorbed by a burden of administrative work which would normally be undertaken by a manager. As from the end of the first phase, this post was filled, while at the same time the post of coordinator was maintained.

In accordance with the opinions gathered, this scheme of two figures linked to the Programme coordination unit should be maintained, though in the framework of strengthened coordination responsibility.

Their respective attributes are defined as follows:

- The *general coordinator* is closely linked to the DNEP and, between each two meetings of accountability to the internal accompanying body of the Ministry of fisheries (Consultative Council), undertakes the general supervision of programme implementation, ensuring that it remains in line with the policies of the government and of the sector reflected in the respective programme document, establishing to this end a permanent link with the manager and, whenever needed, to the coordinators of the components into which the Programme is structured;
- The *manager* deals with all the requests for resources needed to carry out activities under the Programme, registering them adequately or ensuring that this is done in the terms required by the Administration and Finance Department of the Ministry of Fisheries, keeps in regular contact with the institutions of the sector that implement the various sub-components, the national or foreign bodies involved in implementation and the Programme coordinator.

The general coordinator should be appointed from among the senior staff of the Ministry of Fisheries. He/she should have deep knowledge of the policies of sector development and the necessary authority to influence the various stakeholders, and to be able to articulate and harmonise actions that might assist in the good performance of Programme implementation.

The general coordinator should have an active role towards the stakeholders in Programme implementation and very particularly with the functional coordinators of the various components. This pro-active attitude will allow more effective accompaniment of levels of implementation and detection of any eventual deviations during execution, and will allow earlier taking of corrective measures. Thus, questions requiring urgent decisions would not drag on for very long waiting for the steering committee to meet.

As for the manager, he/she should be found from among the technical staff with general knowledge of the Fisheries sector and experience in managing development projects, particularly with regard to financial organisation and management.

Monitoring

As a result of the reflection on Programme implementation during the first phase, it was concluded that monitoring mechanisms should be strengthened.

The structuring of the Programme into components reflecting the functional organisation of the public administration of the sector seeks precisely this objective of strengthening coordination throughout implementation. A coordinator is appointed in each component who is responsible for accompanying implementation of the Programme by the institutions that form part of this component (to which are attributed sub-components). Thus, at the level of each component, it is intended to encourage an effort to accompany execution of Programme activities in the hands of each implementing institution. Preferably, this exercise should not be specific to Programme execution, but should form current practice of coordinating the general functioning of the various functional sub-systems. Therefore, should be in this framework that monitoring of activities provided by the Programme would be undertaken. In the absence of an established practice of coordinating the functional sub-systems, the monitoring of the part of the actions corresponding to the Programme could serve as the lever for its gradual establishment. The conclusions of this monitoring and the need for adjustments that exceed the powers of the functional coordinators should be communicated to the general coordinator. By way of mere indication, it is suggested that this functional monitoring should be held every month.

A second level of monitoring takes place at the level of a *steering committee* chaired by the general coordinator and formed by all the functional coordinators and those responsible for implementing the sub-components of the Programme. Given the composition of this meeting and the importance of the Programme, it will be up to the Ministry of Fisheries to decide whether or not to hold it during the Consultative Council of the Ministry. By way of mere indication, it is suggested that this general monitoring of the Programme be held every three months. These meetings will deal with the following points:

- The main points at the first quarterly meeting will be (i) general balance sheet of programme implementation the previous year; (ii) to accompany its take-off in the current year, and (ii) analyse the proposal of general guidelines for preparing the plan of activities and budget for the following year.
- The second and third of the quarterly meetings shall analyse progress made in implementation towards the outcomes envisaged;
- The main points in the fourth quarterly meeting will be (i) the analysis of progress of the current activities towards the outcomes envisaged and (ii) the approval of the proposals for the plan of activities and budget for the following year.

Finally, twice a year a *joint meeting* is held between the Ministry of Fisheries, the Embassy of Norway, and the representative of Iceland, which shall be the Programme's main decision

making body. These meetings shall take place in August and December each year, and shall deal with the following main points:

- The August meeting shall (i) draw up the general balance sheet of Programme implementation the previous year, (ii) approve any corrective measures beyond the capacity of the general coordinator/steering committee and (iii) accompany the take-off in the current year and lay down general guidelines for preparing the plan of activities and budget for the following year;
- The December meeting shall (i) analyse progress of current activities towards the outcomes envisaged, (ii) approve any corrective measures beyond the capacity of the general coordinator/steering committee and (iii) approve the plan of activities and the indicative budget for the following year.

Collaboration between the Ministry of Fisheries and Norwegian entities

Just as for the first phase of the Programme, the longstanding institutional collaboration between the body responsible for the Mozambican Fisheries sector, and Norwegian bodies, notably the Institute of Marine Research (IMR) of Bergen and the Directorate of Fisheries (DoF) continues to be encouraged in the new phase of the Programme. In the past, this institutional collaboration gave very positive results, forming institutional memories which have contributed to the success of the cooperation. This approach should be maintained and, eventually, expanded by common agreement to other Norwegian entities.

Also during the first phase of the Programme, a contract was signed between the Ministry of Fisheries and the Centre for the Development of Cooperation in Fishing (CDCF), representing the IMR/DoF, which lasted throughout its duration. This collaboration should continue in ways to be agreed contractually between the Ministry of Fisheries and the CDCF.

Review and evaluation

The Fisheries Sector Assistance Programme is envisaged as lasting for four years, covering the period between 2009 and 2012. Unless very profound changes occur in Mozambique's development policies, or in development cooperation on the part of Norway and Iceland, it is not thought that a review will be needed during the period of the Programme's duration.

However, 2009 coincides with the end of the present administration in Mozambique and 2010 with the beginning of the next. Faced with the evolution of the international conjuncture, characterised by a crisis, the contours of which are not yet fully known, but which is expected to worsen and have a negative influence on developing countries, it is possible that the priorities of Mozambican economic policy may change, and that this fact is reflected in the government programme for the next legislature. Thus, although unlikely, it may happen that it becomes necessary to analyse the relevance of the present Programme.

Smaller adjustments to the Programme, as long as its relevance is not in question, will be undertaken, during the two annual joint meetings between the Ministry of Fisheries, the Embassy of Norway and the representative of Icelandic cooperation in Mozambique.

Normally a mid-term review or evaluation of the Programme should take place in 2012, about one year before its end, resorting to an independent team of consultants.

Appendix 1

Discussions under way about future cooperation actions January, 2009

Identification of project		Main details of project					Observations
No.	Item	Fin.	Partners	Budget (USD)	Duration	Coordination	
1	Assistance to the Fisheries Sector in Mozambique		Norway, ICEIDA		2009-12 3 years	Office of Minister	Under formulation Finance guaranteed
2	Support for coastal fishing in southern Mozambique (Maputo, Gaza, l'bane)		WB, Japan		2009-10 1 year	IDPPE	Approved Finance guaranteed
3	Building of artisanal fishing market and support infrastructures in Maputo		JICA			IDPPE	Under discussion
4	Building of artisanal fishing infrastructures in C. Delgado, Nampula and Sofala		China			IDPPE	Finance not guaranteed
5	Establishment of assistance units in Gaza (Massingir) and Maputo (Mutanhana)		ICEIDA			IDPPE/FP	Finance not guaranteed
6	Improved availability of ice for artisanal fishing in inland waters / <i>Concept Note</i>		TCP-FAO Junta Galicia			IDPPE	Finance not guaranteed. Submitted 11.07
7	Development of fresh water aquaculture in southern Mozambique/ <i>Concept Note</i>		TCP-FAO Junta Galicia			IIP	Finance not guaranteed. Submitted 11.07
8	Establishment of ecology and water quality laboratory in IIP (Concept Note)		TCP-FAO Junta Galicia			IIP	Finance not guaranteed. Submitted 11.07
9	Genetic study on marine shrimps in Mozambique (Concept note)		TCP-FAO Junta Galicia			IIP	Finance not guaranteed. Submitted 11.07
10	Improved production from small scale fish farming		NEPAF			INAQUA	Finance not guaranteed
11	Technical assistance for establishing regional network for aquatic bio-security in Africa		FAO-TCP			INIP	Finance not guaranteed
12	Strengthened food security through improved quality of fisheries and aquaculture produce		DFID & UNDP		2008-2011	INIP	Under discussion
13	Training, selection and hiring of sailors at origin – FORPEX Project		Spain			EP	Under discussion
14	Rehabilitation of the industrial quay at the Maputo Fishing Port (Phase III)		JICA			DNAP & PPM	Finance not guaranteed. Submitted in 2003
15	Reduction of the shrimp by-catch and changes in management of shrimp fisheries in tropical countries (regional proj.)		GEF, UNEP & FAO			IIP	Approved. Under way (?)
16	Strengthening fisheries management capacity in ACP countries (Regional proj)		EU/FFED			DNAP	Approved in 12/07
17	Development of fishing and aquaculture on Lake Niassa (regional project)		WB/GEF				Under discussion
18	Safety at sea for small scale fishermen (regional project/SWIOFC)		SISA/ Sweden			FAO	Under discussion
19	Institutional capacity building and training in rural develop. and aquaculture in Africa, through South-South cooperation		FAO, Japan			INAQUA	Finance not guaranteed. Submitted 04/07
20	Coordination and implementation of agricultural research and training in the SADC region		EU/FFED			INAQUA	Finance not guaranteed. Submitted 03/06
21	PROFISH – artisanal fisheries – MCS		WB				No information

INFORMATION ON THE REGIONAL PROJECTS

EC: Quality control in the ACP: Information not available

EC: Quality control in the ACP: total budget 40.8 million USD for about 60 ACP countries. Costs of the national sub-programmes are not available.

SIDA: Support of SWIOFC: total budget 764,710 USD, managed by FAO for 11 countries: Kenya, Reunion, Madagascar, Mauritius, Mozambique, Maldives, Tanzania, South Africa, Seychelles and Somalia

GEF: Fisheries in the south-west Indian Ocean. Total value 22.7 million USD. 8 beneficiary countries: Kenya, Mozambique, Madagascar, Mauritius, Tanzania, South Africa and Comoros.

PROGRAMME MATRIX
Assistance to the Fisheries Sector of Mozambique (2009-12)

Appendix 2

Development Objective	Indicators	Verification sources	Factors of sustainability
<p>It is assumed that the immediate objective of the Master Plan (under formulation) seeks the following effects and priorities:</p> <ul style="list-style-type: none"> ▪ Strengthened contribution of the sector in improving the food and nutritional security in fisheries produce for the population; ▪ Improved living conditions of the communities of artisanal fishermen and small scale fish farmers; ▪ Increased contribution of the industrial fisheries and of commercial aquaculture undertakings to the national objective of poverty reduction; ▪ Increased net contribution of the sector to the country's balance of payments; <p>in a framework of a more effective fisheries administration and of sustainability of the fisheries resources and of environmental balance.</p> <p><u>Target-group</u>: The population of Mozambique with priority to the poorest strata.</p>	<p><i>(To be defined in the Master Plan)</i></p>	<p><i>(To be defined in the Master Plan)</i></p>	<p>The factors that may be defined in the Master Plan, and</p> <ul style="list-style-type: none"> ▪ Continuation of international cooperation for the development of the sector without sudden alterations; ▪ Gradual inclusion of the actions generated by development assistance and fisheries management in the state budget for the sector; ▪ Continued general economic growth; ▪ Social and economic stability in the country; ▪ Stability of the staff trained.
Immediate Objective	Indicators	Verification sources	External Factors
<p>The Fisheries Administration with capacity and competence in the sphere of promoting the development and management of the fisheries and of aquaculture, in order to attain sustainable and viable use of aquatic resources by private operators and communities of fishermen and fish farmers, who are directly dependent on fishing and aquaculture.</p> <p><u>Target-group</u>: Technical and managerial staff of the Fisheries public administration.</p> <p><u>Other beneficiaries</u>: The population that depends directly on fishing and aquaculture for its food or as an income</p>	<p>(1) The capacity to produce fisheries produce for domestic supplies through artisanal fishing and small scale aquaculture increased and diversified as a result of the programme;</p> <p>(2) An information system available in the Fisheries sector providing data for monitoring and serving as a basis for drawing up plans, programmes and development projects;</p> <p>(3) The net contribution of the Fisheries sector to the balance of payments ascertained regularly as from Year ...;</p> <p>(4) A human resource development programme, covering not only the institutions of the Fisheries administration, but also seeking to train staff from the various productive areas, drawn up based on the data provided by sector statistics;</p>	<p>(1) Sector statistics published by the MP/DNEP and national statistics published by the INE;</p> <p>(2) Sector statistics published by the MP/DNEP</p> <p>(3) Sector statistics published by the MP/DNEP and national statistics published by the INE;</p> <p>(4) Annual report of the MP/DRH and monitoring reports of the human resource development</p>	<ul style="list-style-type: none"> ▪ Stability on the international market, particularly with regard to the prices of fisheries produce and of oil; ▪ Greater importance granted by the Government to the role of fisheries in reducing rural poverty; ▪ Rehabilitation of social and economic infrastructures in general continued and covering the fishing districts; ▪ Measures to stabilise the trained staff taken; ▪ Stability in the system to allocate funds for the running of the Fisheries administration.

(Cont.)	(5) The Fisheries administration at provincial and district level structured functionally, with the respective powers and forms of articulation defined between the provincial directorate, the delegations of the institutions of the sector and the district administration.	programme; (5) Annual report of the MP and annual reports of the DPPs;	
<p>Objectives of the components</p> <p>A. Ministry of Fisheries institutionally strengthened (Coordinating body: Ministry of Fisheries)</p> <p>The Ministry of Fisheries with greater capacity to formulate policies and strategies, to draft fisheries legislation proposals, to formulate and monitor plans, as well as to coordinate their implementation internally and with other economic and social sectors.</p> <p><u>Target-group:</u> The technical and managerial staff of the MP</p> <p>B. Fisheries management capacity strengthened (Coordinating body: DNAP)</p> <p>The Fisheries administration with greater capacity to assess the state of exploitation of the fish resources and the fisheries, make recommendations, convert them into management measures, and impose compliance with fishing laws and regulations.</p> <p><u>Target-group:</u> Fisheries research, administration and surveillance technical and fish inspection technical and managerial staff.</p>	<p>Indicators</p> <p>(a1) A unit to formulate policies and strategies operating in the MP and providing methodological support in drawing up Fisheries administration policies and strategies; (a2) Fisheries sector statistical yearbook published and available for the public at large as from Year ...; (a3) Fisheries Master Plan under implementation, subject to regular monitoring and serving as a reference point for all policy and strategic documents and planning instruments adopted; (a4) Conflicts of interest or lack of clear responsibilities in one and the same area between the Fisheries sector and other sectors reduced (oil and gas, tourism, aquatic conservation areas and mining);</p> <p>(b1) Management recommendations, with evidence of the gradual inclusion of knowledge of environmental factors, regularly issued for the main fishery resources during the life span of the programme, converted into management measures; (b2) Recommendations resulting from bioeconomic assessments of the main fisheries, gradually available during the life span of the programme, converted into management measures; (b3) Seminars on management of aquatic resources and of fisheries to be held annually on the joint initiative of the DNAP and IIP and with participation of representatives of the entire Fisheries administration and of the productive sector; (b4) Surveillance capacity covering the fishing areas most vulnerable to IUU activities and gradually covering the entire EEZ; (b5) Interconnections and guidelines defined on the organisation of local bodies between the central, provincial and district levels; (b6) Participatory management bodies operating in all coastal provinces and in at least ... districts by the end of the programme.</p>	<p>Verification sources</p> <p>(a1) Statutes of the MP and reports of the DNEP; (a2) Corresponding documents issued by the MP, directorates or subordinate institutions (a3) Own publications edited by the MP/DNEP; (a4) Annual reports of the MP and interviews with other sectors;</p> <p>(b1) Specific IIP reports; (b2) Specific IIP reports; (b3) Reports of the seminars; (b4) Surveillance and monitoring reports; (b5) Legal diplomas; (b6) Reports of the DNAP and minutes of the sessions.</p>	<p>External factors</p> <ul style="list-style-type: none"> ▪ Growing focus on policies, planning, legal responsibilities and coordination by the MP; ▪ No delays that compromise activities envisaged in the programme; ▪ New financial and purchasing systems operating effectively, with minimal delays; <ul style="list-style-type: none"> ▪ Adequate coordination of efforts between DNAP, provincial directorates and IDPPE in relation to their district activities; ▪ Receptiveness of the district authorities to the organisation of the fisheries administration; ▪ Stability of the staff trained; ▪ Stability of technical assistance;

<p>C. Promotion of the production of fisheries produce (intended for consumption by the population) (Coordinating body: IDPPE)</p> <p>The Fisheries administration with greater capacity to promote the development of food production intended for domestic consumption (artisanal fishing, including commercial, use of the shrimp by-catch, and small scale aquaculture).</p> <p><u>Target-group:</u> IDPPE, FFP and INAQUA technical and managerial staff <u>Other beneficiaries:</u> Artisanal fishermen involved in collecting the by-catch, commercial artisanal fishermen and small scale fish farmers.</p> <p>D. Institutional capacity to deal with cross-cutting questions supported (Implementing body: Ministry of Fisheries)</p> <p>Greater capacity in the Fisheries sector to deal with the spread of HIV/AIDS, to apply practices of good governance, and to contribute towards greater gender equity and environmental sustainability.</p> <p><u>Target-Group:</u> Technical and managerial staff of the sector <u>Other beneficiaries:</u> Workers of the sector in general</p>	<p>(c1) Increased domestic supply of fisheries produce from artisanal fishing, use of the by-of the shrimp industrial fleet, and small scale aquaculture, as a result of the development of production for national consumption induced by the programme up to the end of its life span;</p> <p>(Partly common to the outcomes/sub-components)</p> <p>(d1) A plan of action to publicise the risks of HIV/AIDS in the fisheries sector drawn up and under implementation as from Year ...;</p> <p>(d2) Environmental questions figuring in all policy and strategic documents under application in the Fisheries sector.</p> <p>(d3) All policy documents and development plans of the sector containing references to strategies and objectives seeking greater gender equity in the fisheries sector;</p> <p>(d4) Current gender distribution percentage at the various professional and leadership levels of the public administration improved in favour of women during the life span of the programme;</p> <p>(d5) A positive evolution in women's representation in the fisheries' participatory management bodies and in community grass roots organisations'</p> <p>(d6) Cases of inadequate behaviour and practices in the public administration leading to investigations and channelled to the relevant bodies for analysis and decision;</p>	<p>(c1) Sector statistics on artisanal catches, shrimp by-catch and aquaculture;</p> <p>(d1) Respective reports;</p> <p>(d2) Direct verification through the policy documents and development plans;</p> <p>(d3) Direct verification through the documents mentioned;</p> <p>(d4) Human resource statistics of the DRH;</p> <p>(d5) Ibid;</p> <p>(d6) Proved through documents of the MF General Inspectorate.</p>	<ul style="list-style-type: none"> ▪ Improved availability of information to monitor food production; ▪ Gradual improvement in the living conditions of the population in general, with a consequent increase in purchasing power; ▪ Efforts continued to bring infrastructures to rural areas where small scale fisheries and aquaculture producers are located; ▪ A framework for relationship between the Fisheries and Agriculture in the area of fish farming defined.; <ul style="list-style-type: none"> ▪ National HIV/AIDS prevention efforts begin to produce positive results; ▪ National anti-corruption and good governance efforts in general begin to produce positive results; ▪ National efforts for greater gender equity produce continued positive results; ▪ National efforts to establish environmental preservation produce positive results;
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<p>Sub-components and respective Outcomes</p> <p>A. Ministry of Fisheries Component <i>(Component coordinating and implementing body: Ministry of Fisheries)</i></p> <p><u>Outcome 1:</u> The Fisheries statistical system adjusted; <u>Outcome 2:</u> A capacity to formulate fisheries policies created; <u>Outcome 3:</u> Efforts supported to solve conflicts of interest or failure to define responsibilities in the same area between the Fisheries sector and other sectors (oil and gas, mining, tourism, aquatic conservation areas, etc.); <u>Outcome 4:</u> Implementation of the Fisheries Master Plan supported; <u>Outcome 5:</u> The establishment of a strategy for general integration of the offshore tuna fishing economy into the national economy; <u>Outcome 6:</u> Creation of the Fisheries Museum supported; <u>Outcome 7:</u> Actions to increase the technical and scientific qualifications of Fisheries administration staff continued as well as other agents; <u>Outcome 8:</u> Financial and procurement management capacity strengthened in the institutions of the Fisheries administration system.</p> <p>B. Fisheries Management Component <i>(Component coordinating body: DNAP)</i></p> <p>B1. Fisheries Research sub-component <i>(Sub-component implementing body: IIP)</i></p> <p><u>Outcome 1:</u> Assessment of the state of exploitation of the economically important fisheries resources supported;</p>	<p>(R1) Sector statistical yearbook published as from Year ...,with gradually increased information in the following years up to the end of the programme; (R2.1) A unit to formulate policies, strategies and various studies set up by Year ...; (R2.2) The unit to formulate policies, strategies and various studies with two technical staff trained by Year ...; (R3) Inter-sector protocols of understanding on conflicts of interest negotiated and in force by the end of the programme; (R4) Regular Fisheries Master Plan monitoring reports serving as a basis for drawing up the PES and other sector development plans as from Year ...; (R5) An industrial tuna fishing fleet based in Mozambique as from Year ... and at least one tuna processing unit operating or under implementation by the end of the programme; (R6.1) Architecture project of the Fisheries Museum completed by Year ... (R6.2) The Fisheries Museum main building finalised by the end of Year ... and the exhibits organised by the end of the programme; (R7) At least ... licentiate, ... master and ... doctoral degrees awarded during the life span of the programme; (R8) Administration and finance staff of all the institutions of the fisheries administration trained in project financial management and procurement by Year ...;</p> <p>(R1) Assessments made of the state of exploitation of the main economically important resources: annual for Sofala Bank shrimp, every two years for <i>gamba</i> (as from Year 1) and for demersal line species, kapenta and Maputo Bay magumba (as from Year 2) and issuing the subsequent management recommendations;</p>	<p>(R1) Annual DNEP reports and the yearbooks themselves; (R2.1) Study document and DNEP reports; (R2.2) Ibid; (R3) Agreed protocols; (R4) Fisheries Master Plan monitoring reports; (R5) Annual reports of the DNEP and direct verification; (R6.1) Architecture contract and project documents); (R6.2) Direct verification; (R7) Annual DRH reports; (R8) Reports of the DAF/MP and direct findings about the tasks undertaken in the institutions;</p> <p>(R1) Annual IIP reports and specific assessment reports;</p>	<ul style="list-style-type: none"> ▪ Staff recruited with the qualifications required and in good time; ▪ No delays that compromise activities envisaged in the programme; ▪ Receptiveness on the part of the interested sectors in relation to the interests and recognition of the importance of fishing; ▪ Building the museum occurs without delays; ▪ The funds not covered by the present programme are raised in the amount and at the time required <ul style="list-style-type: none"> ▪ Staff required to the new activities induced by the Programme recruited in good time and with the required qualifications;
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<p>(Cont.)</p> <p><u>Outcome 2:</u> Study of the division of management tasks and responsibilities between the central, provincial and district levels (including participatory management bodies) supported;</p> <p><u>Outcome 3:</u> The capacity for implementation and strategic assessment of the fisheries management plans supported;</p> <p><u>Outcome 4:</u> Fisheries surveillance capacity in the EEZ strengthened;</p> <p><u>Outcome 5:</u> The training of fishing inspectors continued;</p> <p><u>Outcome 6:</u> Expansion of regional cooperation supported;</p> <p><u>Outcome 7:</u> The MCS data bank expanded and its management improved.</p> <p><u>Outcome 8:</u> The possibility of a regional solutions to the adoption of a VMS system in Mozambique analysed;</p> <p><u>Outcome 9:</u> The holding of annual seminars on the state of exploitation of the aquatic resources and of the fisheries management supported;</p>	<p>(R2.1) Main fishing districts with a clear mandate with regard to the licensing ceilings for the main fisheries and to artisanal fishing management powers by Year... in the coastal provinces and by Year... in the remainder;</p> <p>(R2.2) Participatory management bodies operational in the coastal provinces and Niassa and Tete provinces by Year... and in the other provinces by Year.... providing recommendations to decision-making levels on fisheries management and development promotion;</p> <p>(R3.1) Development/management plans being applied to the economically most important fisheries: integrated plan for the Sofala Bank shrimp fisheries as from Year ...; line demersal species fisheries as from Year ...; "gamba" and its by-catch as from Year ...; and deep water lobster fishery as from Year ...;</p> <p>(R3.2) The fisheries administration regularly monitoring the fisheries with defined development/management plans, noting the degree of convergence for the indicators defined and adopting the corrective measures deemed necessary;</p> <p>(R4.1) An annual average of ... days of patrol missions at sea in Years 1-2 and.... in Years 3-4;</p> <p>(R4.2) An average of ... days of aerial patrol missions in Years 1-2 and.... in Years 3-4;</p> <p>(R4.3) A national patrol vessel capable of covering the EEZ at the service of surveillance operating as from Year ...;</p> <p>(R4.4) A fisheries intelligence unit operational in the DNAP as from Year ...;</p> <p>(R5) ... surveillance agents trained by Year ... and a further ... by Year ...;</p> <p>(R6.1) Mozambican membership of all the Indian Ocean regional organisations achieved as from Year ...;</p> <p>(R6.2) Mozambique becomes the headquarters of the MCS regional coordinating unit for the western Indian Ocean by the end of the programme;</p> <p>(R6.3) A new approach to VMS based on regional cooperation designed by Year ...;</p> <p>(R7) The fisheries administration data base accessible from all the sector's institutions located in Maputo city and Nampula by Year ..., Sofala and Maputo province by Year ... and the provinces of ... by Year ...;</p> <p>(R8) Study on the possibility analysed of a regional solution to the adoption of a VMS system in Mozambique held in Year...;</p> <p>(R9) Annual seminars held on the state of research and of the management of aquatic resources in Mozambique;</p>	<p>(R2.1) Legal diploma fixing the ceilings and powers at provincial and district levels;</p> <p>(R2.2) Annual DNAP and local bodies reports;</p> <p>(R3.1) Development/management of plans and documents;</p> <p>(R3.2) Development/management plans documents and DNAP monitoring reports;</p> <p>(R4.1) Annual reports of the DNAP;</p> <p>(R4.2) Ibid;</p> <p>(R4.3) Acquisition documents and direct verification;</p> <p>(R4.4) Annual reports of the DNAP and direct verification;</p> <p>(R5) Annual reports of the DNAP;</p> <p>(R6.1) Annual reports of the DNAP and membership documents;</p> <p>(R6.2) Reports of the DNAP and regional meetings documents;</p> <p>(R6.3) Report and agreements eventually signed;</p> <p>(R7) Reports of the DNAP and direct verification;</p> <p>(R8) Study report;</p> <p>(R9) Seminar reports and annual reports of DNAP and IIP;</p>	<ul style="list-style-type: none"> ▪ An adequate consultant chosen from the region with knowledge of the regional and international tuna industry; ▪ The funds not covered by the present programme are raised in the amount and at the time required; ▪ Greater priority to regional fisheries cooperation; ▪ Stability in the corps of agents involved in fisheries surveillance; ▪ Interlocutors with the capacity and availability required to operate the data bank at local level; ▪ Receptiveness on the part of countries in the Indian Ocean region towards the cooperation activities proposed by Mozambique;
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<p>B3. Fish Inspection Sub-component <i>(Body implementing the sub-component: INIP)</i></p> <p><u>Outcome 1:</u> A long term strategic plan drawn up and under implementation providing the procedures and framework necessary for INIP to operate as an autonomous institution;</p> <p><u>Outcome 2:</u> INIP resources developed in order to provide more efficient and sustainable services;</p> <p><u>Outcome 3:</u> Capacities developed in the sphere of human resource management, financial management, inspection and laboratory services based on a training strategy;</p>	<p>(R1.1) Studies referring to (i) the organisation of the institution and respective technical and financial management capacities required for its operation, (ii) improvement of the process of fixing service fees, procurement and use of the institution's income, (iii) fixing service fees, (iv) possibility of increasing income from additional services, (v) maintenance and instrument calibration system, (vi) medium and long term technical assistance needs, (vii) external assessment of the institution's performance, (viii) financial management system, (ix) training needs at all levels of the institution and (x) identification of forms of cooperation with other national institutions in the fields of training and services;</p> <p>(R1.2) A strategic plan approved and under implementation as from Year ...;</p> <p>(R2.1) Reports generated through the data base available as from Year ...;</p> <p>(R2.2) Reports generated through the data base referring to inspections in all delegations available within seven days after the inspection as from Year ...;</p> <p>(R2.3) Current routines and services to be sustained, particularly with regard to waste control, heavy metals and environmental contaminants, procedures on water analysis and indexed method for rapid assessment of the local species as from Year ...;</p> <p>(R2.4) A manual for elementary maintenance and calibration of laboratory tools available and in use as from Year ...;</p> <p>(R2.5) A manual of financial procedures with the respective software available and in use as from Year ...;</p> <p>(R2.6) Biannual budgets drawn up and in use as from Year ...;</p> <p>(R2.7) A computerised system for controlling stocks, orders and the respective budgeting available and in use as from Year ...;</p> <p>(R2.8) The industry tests for sulphites through the use of appropriate kits resulting from the initiative of the institution;</p> <p>(R3.1) Technical training promoted for ... administrators, ... planners, ... staff managers and ... laboratory agents in Years ..., ..., ... and ..., respectively;</p> <p>(R3.2) Trained regularly and at all laboratory levels ... agents in focused aspects before and after external proficiency tests;</p> <p>(R3.3) ... laboratory agents trained in basic maintenance in each laboratory in Year ...;</p> <p>(R3.4) ... computer staff trained in designing data bases and programming, management of servers, security copies, and management of the FileMaker server;</p> <p>(R3.5) ... administrative agents trained in short courses in administrative and procurement procedures in Year ...;</p> <p>(R3.6) ... agents trained annually in organisational development, planning through projects, long term budgeting and drafting of reports;</p>	<p>(R 1.1) Consultancy reports and eventual agreements and/or legal diplomas resulting from them;</p> <p>(R 1.2) Plan document and respective annual executive plans;</p> <p>(R.2.1) Direct verification;</p> <p>(R 2.2) Direct verification;</p> <p>(R 2.3) Reports of INIP and direct verification ;</p> <p>(R 2.4) Manual and direct verification;</p> <p>(R 2.5) Manual, software and direct verification;</p> <p>(R 2.6) Documents drawn up;</p> <p>(R 2.7) direct verification;</p> <p>(R 2.8) direct verification;</p> <p>(R 3.1) Reports of INIP and interviews with trainees;</p> <p>(R 3.2) Reports of INIP and interviews with trainees;</p> <p>(R 3.3) Reports of INIP and interviews with trainees;</p> <p>(R 3.4) Reports of INIP and interviews with trainees;</p> <p>(R 3.5) Reports of INIP and interviews with trainees;</p> <p>(R 3.6) Reports of INIP and interviews with trainees;</p> <p>(R 3.7) Reports of INIP and interviews with trainees;</p> <p>(R 3.8) Reports of INIP and interviews with trainees;</p> <p>(R 3.9) Documents drawn up;</p> <p>(R 3.10) Reports of INIP and interviews with trainees;</p>	<ul style="list-style-type: none"> ▪ Adequate collaboration on the part of ship-owners companies and industry; ▪ Support and commitment by the staff of the institution in general; ▪ Stability of the staff trained;
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(Cont.)	<p>(R3.7) ... financial staff trained in short courses in the financial system and in procurement methods and procedures in Year ...;</p> <p>(R3.8) Three-day courses for updating in public administration legislation and legal procedures held every year in all delegations,;</p> <p>(R3.9) Long term projections available annually on costs, budgetary needs, and fixing of prices for services as from Year... ;</p> <p>(R3.10) ... staff of the institution trained in the English language inside the country and ... senior staff members in technical English outside the country;</p> <p>(R3.11) Courses held derived from other projects;</p>	(R 3.11) Reports of INIP and interviews with and the agencies sponsoring other projects;	
<p>C. Promotion of the Production of Fisheries Produce Component (intended for the consumption of the public) <i>(Component coordinating body: IDPPE)</i></p> <p>C1. Artisanal Fishing Sub-component <i>(Body implementing the sub-component: IDPPE)</i></p> <p><u>Outcome 1:</u> Creation of the artisanal fishing statistics subsystem supported;</p> <p><u>Outcome 2:</u> Capacity of the IDPPE statistics and computer department strengthened;</p> <p><u>Outcome 3:</u> The collection of the shrimp by-catch and the development of artisanal catches supported;</p> <p><u>Outcome 4:</u> Expansion in the catch of fish through alternative artisanal fishing methods promoted;</p> <p><u>Outcome 5:</u> The value added to fisheries produce from in-land waters promoted;</p> <p><u>Outcome 6:</u> Technical conditions of artisanal fishing boats improved in Cabo Delgado (Palma, M. Praia or Macomia), Nampula (Memba, Mongincual e Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi e Machanga) and Inhambane (Govuro, Inhassoro and Vilanculo).</p> <p><u>Outcome 7:</u> Artisanal fishing methods and gear improved in Cabo Delgado (Palma, M. Praia or Macomia), Nampula (Memba, Mongincual and Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira,</p>	<p>(R1.1) A sub-sector statistical plan for artisanal fishing drawn up and under implementation by Year ... ;</p> <p>(R1.2) Technical norms established for the various statistical component by Year ... in relation to ... and by Year ... in relation to ;</p> <p>(R1.3) An artisanal fishing statistical yearbook published as from Year ...;</p> <p>(R2) Capacity created for computerised treatment of statistical data in the IDPPE by Year ... ;</p> <p>(R3) ...new artisanal boats to make use of the by-catch from the industrial shrimp fleet arising as a result of the support provided and a further ... by the end of the programme;</p> <p>(R4) Artisanal boats dedicated to fishing small pelagic, demersal and tuna species in operation by the end of the programme;</p> <p>(R5) ... pilot units providing value added to fisheries produce from inland waters set up until Year ... and another ... by the end of the programme;</p> <p>(R6.1) ... work kits supplied to carpenters in the northern and central provinces and Inhambane in Year and ... and in Years ..., ... and;</p> <p>(R6.2) ... training courses for carpenters in the northern and central provinces and Inhambane in Year and ... and in Years ..., ... and;</p> <p>(R6.3) ... training courses for fishermen on navigation, security and fishing equipment and ... on maintenance and repairing of engines in the northern and central provinces and Inhambane in Year and ... and in Years ..., ... and;</p> <p>(R6.4) 10 improved traditional boats built with the technical assistance and credit provided by micro credit operators;</p>	<p>(R1.1) Document of the artisanal sub-sector statistical plan;</p> <p>(R1.2) Documents of the technical statistical norms ;</p> <p>(R1.3) The statistical yearbook itself;</p> <p>(R2) IDPPE reports and direct verification;</p> <p>(R3) IDPPE annual reports;</p> <p>(R4) Ibid;</p> <p>(R5) Ibid;</p> <p>(R6) (R2) IDPPE reports and direct verification;</p> <p>(R7) (R2) IDPPE reports and direct verification;</p> <p>(R8) Ibid;</p> <p>(R9) Ibid;</p> <p>(R10) Ibid;</p>	<ul style="list-style-type: none"> ▪ Staff recruited in good time and with the required qualifications; ▪ Stability of the staff trained; ▪ The funds not covered by the present programme are raised in the amount and at the time required; ▪ Receptiveness on the part of potential interested parties towards the activities promoted;

<p>(Cont.)</p> <p>Búzi and Machanga) and Inhambane (Govuro, Inhassoro and Vilanculo);</p> <p><u>Outcome 8:</u> Artisanal processing methods and trading fisheries produce trade improved in Cabo Delgado (Palma, Mocimboa da Praia or Macomia), Nampula (Memba, Mongincual and Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi e e Machanga), Inhambane (Govuro, Inhassoro e Vilanculo) and Maputo (Marracuene and Maputo bay);</p> <p><u>Outcome 9:</u> Storage and trading conditions of fisheries produce improved in Cabo Delgado (Palma, Mocimboa da Praia or Macomia), Nampula (Memba, Mongincual and Moma), Zambezia (Pebane, Maganja da Costa and Chinde), Sofala (Beira, Búzi and Machanga) and Inhambane (Govuro, Inhassoro and Vilanculo).</p> <p><u>Outcome 10:</u> The extensionist network expanded;</p>	<p>(R7.1) 5 fishing gear with improved selectivity tried and transferred to fishermen in the northern and central provinces and Inhambane during the duration of the Programme;</p> <p>(R7.2) New fishing areas surveyed and information transferred to commercial artisanal fishermen in the northern and central provinces and Inhambane during the duration of the Programme;</p> <p>(R7.3) 5 training courses on improved fishing techniques and professional organisation of fishermen held in the northern and central provinces and Inhambane during the duration of the Programme;</p> <p>(R7.4) Commercial network of fishing gear expanded through credit provided by micro credit operators;</p> <p>(R8.1) 5 training courses for fishermen on improved processing and conservation techniques in 5 coastal provinces during the duration of the Programme;</p> <p>(R8.2) 5 training courses for fishermen on improved handling, processing and conservation techniques of fresh fish in 5 coastal provinces during the duration of the Programme;</p> <p>(R8.3) Ice production and use of isothermal boxes expanded through credit provided by micro credit operators in 5 coastal provinces during the duration of the Programme;</p> <p>(R9.1) 3 stores dedicated to salt/dry fish built by the Programme in the northern and central provinces and Inhambane during the duration of the Programme;</p> <p>(R9.2) 5 fish first sale markets built by the Programme in the northern and central provinces and Inhambane during the duration of the Programme;</p> <p>(R9.3) 4 fish retail markets built by the Programme in the northern and central provinces and Inhambane during the duration of the Programme;</p> <p>(R9.4) 5 cold stores located in fish retail markets and fishing centres in the northern and central provinces and Inhambane through credit provided by micro credit operators during the duration of the Programme;</p> <p>(R10.1) 2 new extensionist centres created during the first two Years of the Programme;</p> <p>(R10.2) ... training courses for extensionists held in 5 coastal provinces during the duration of the Programme;</p>		
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<p>C2. Small Scale Aquaculture Sub-component (<i>Body implementing the sub-component: INAQUA</i>)</p> <p><u>Outcome 1:</u> Preparation of draft complementary regulations for aquaculture supported;</p> <p><u>Outcome 2:</u> An aquaculture statistical system designed and implemented;</p> <p><u>Outcome 3:</u> The Chokwe aquaculture training station recovered and take-off of its operations supported;</p> <p><u>Outcome 4:</u> INAQUA delegations supported in the four priority provinces (Niassa, Zambezia, Tete and Manica).</p> <p><u>Outcome 5:</u> The Project "Institutional Capacity Development for Sustainable Aquaculture in Mozambique included into the Programme".</p> <p>C3. Training by the Fisheries School Sub-component (<i>Body implementing the sub-component: EP</i>):</p> <p><u>Outcome 1:</u> Mobile courses in HACCP (Hazard Critical Control Points Hygiene and Sanitation and Traceability held in the fishing and processing companies and for artisanal fishermen</p> <p><u>Outcome 2:</u> Conditions prepared to hold courses in the EP (study on the future role of the school included);</p> <p>NB: The following outcomes and activities are depending on the conclusions of the study</p> <p><u>Outcome 3:</u> Courses held on preserving the quality of the various products of artisanal fishing in the different post-catch phases;</p> <p><u>Outcome 4:</u> Courses held on the precautions to be taken in small scale aquaculture.</p>	<p>(R1.1) New complementary legislation for aquaculture (animal diseases and discharges of infected specimens, treatment and discharge of effluent, use of chemical productions, feed and veterinary drugs, framework for commercial aquaculture operations) drawn up and in force by the end of Year ;</p> <p>(R1.2) A national plan to prevent risks and diseases in aquaculture drawn up and in force as from Year....;</p> <p>(R.2) A statistical yearbook on aquaculture published by the end of the programme;</p> <p>(R3.1) ... instructors trained at the Chokwe training station by Year ...;</p> <p>(R3.2) ... extensionists and small scale fish farmers trained by Year ... and a further ... by Year ...;</p> <p>(R3.3) The Chokwe station supplying ... juveniles to fish farmers by Year ... and by Year</p> <p>(R4) ... extension missions in rural communities held by Year ... and ... by Year ...;</p> <p>(R1) Mobile courses held in Years 1 for managers, processing staff, quality controllers and extensionists with a duration of 2-4 days;</p> <p>(R2) A study on the role of EP and the training programme to be held available in Year 1;</p> <p>(R2.1) 8</p> <p>(R2.2) 18 "express" courses held between Years 2 and 4, with 20 trainees each, lasting 2-3 days each, for extensionists and commercial artisanal fishermen;</p> <p>(R2.3) 20 "basic" courses held throughout the length of the programme with 20 trainees each, lasting 1-2 days, for artisanal fishermen with the support of the extensionists already trained;</p> <p>(R3.1) 20 "express" courses held throughout the length of the programme with 20 trainees each, lasting 2-3 days each, for extensionists and commercial artisanal fishermen;</p> <p>(R3.2) 20 "basic" courses held throughout the length of the programme with 20 trainees each, lasting 1-2 days, for artisanal fishermen with the support of the extensionists already trained;</p> <p>(R4.1) 8 courses held between Years 2 and 4, with 20 trainees and lasting 5-6 days each, for extensionists and small scale fish farmers;</p> <p>(R4.2) 8 "basic" courses held throughout the programme, with 20 trainees each and lasting 2-3 days, for small scale fish farmers, with the support of the extensionists already trained;</p>	<p>(R1.1) Legal diplomas published in the <i>Boletim da República</i>;</p> <p>(R1.2) Plan document ;</p> <p>(R.2) INAQUA activity reports and the yearbook itself;</p> <p>(R3.1) INAQUA activity reports;</p> <p>(R3.2) Ibid;</p> <p>(R3.3) Ibid);</p> <p>(R4) Ibid;</p> <p>(R1) EP reports and interviews with trainees;</p> <p>(R2.1) Report by the consultant;</p> <p>(R2.2) EP reports and interviews with trainees;</p> <p>(R3.1) EP reports and interviews with trainees;</p> <p>(R3.2) EP reports and interviews with trainees;</p> <p>(R4.1) EP reports and interviews with trainees;</p> <p>(R4.2) EP reports and interviews with trainees</p>	<ul style="list-style-type: none"> ▪ Staff recruited in good time and with the required qualifications and; ▪ Stability of the staff trained; ▪ Adequate articulation in implementation with bodies of the Ministry of Agriculture at provincial and district level; ▪ The funds not covered by the present programme are raised in the amount and at the time required; ▪ Receptiveness on the part of potential interested parties towards implementing fish farming activities; <ul style="list-style-type: none"> ▪ Adequate collaboration on the part of ship-owners and processing industry; ▪ Support and commitment by the staff of the institution in general; ▪ Stability of the staff trained; ▪ Adequate coordination with INIP and INAQUA;
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<p>D. Cross-cutting questions Component (<i>Implementing body: Ministry of Fisheries</i>)</p> <p><u>Outcome 1</u>: Actions to prevent HIV/AIDS supported;</p> <p><u>Outcome 2</u>: A gender policy supported;</p> <p><u>Outcome 3</u>: Practices of good governance supported;</p> <p><u>Outcome 4</u>: The inclusion of environmental aspects into the policies and strategies of the sector supported.</p>	<p>(R1) A plan of activities to divulge the risks of HIV/AIDS in the fisheries sector drawn up and under implementation as from Year ...;</p> <p>(R2.1) Gender situation in the fisheries sector subject to regular monitoring throughout the programme period;</p> <p>(R2.2) All policy documents and development plans containing references to objectives and strategies seeking greater gender equity within the fisheries sector (<i>Source</i>: Direct verification through the documents mentioned);</p> <p>(R3) All illegalities detected in the Fisheries administration duly investigated and channelled to the relevant bodies for decision during the life span of the programme;</p> <p>(R4) Environmental questions contained in all policy and strategic documents under application in the Fisheries sector.</p>	<p>(R1) Reports from the DRH/MP and from the consultant recruited;</p> <p>(R2) Human resource statistics of the DRH;</p> <p>(R3) Consult the record of occurrences and cases in the MF general inspectorate;</p> <p>(R4) Verification of the policy and strategy documents of the sector;</p>	<ul style="list-style-type: none"> ▪ Adequate cooperation from the public and private entities in the sector to the activities divulging the risks of HIV/AIDS; ▪ Interlocutors at local level with the required capacity and availability to undertake activities related with HIV/AIDS; ▪ Receptiveness towards including gender questions in policies, strategies and decisions at the level of the Fisheries administration; ▪ Receptiveness towards including questions tending to good governance in all policies, strategies and decisions at the level of the Fisheries administration; ▪ Receptiveness towards including questions concerning the environment in all policies, strategies and decisions at the level of the Fisheries administration and with regard to the sector in general;
<p>Activities (Following table in Annex 3)</p>	<p>Resources (See budgets in paragraph 3.5)</p>		<p>External factors (Following table in Annex 3)</p>

Appendix 3

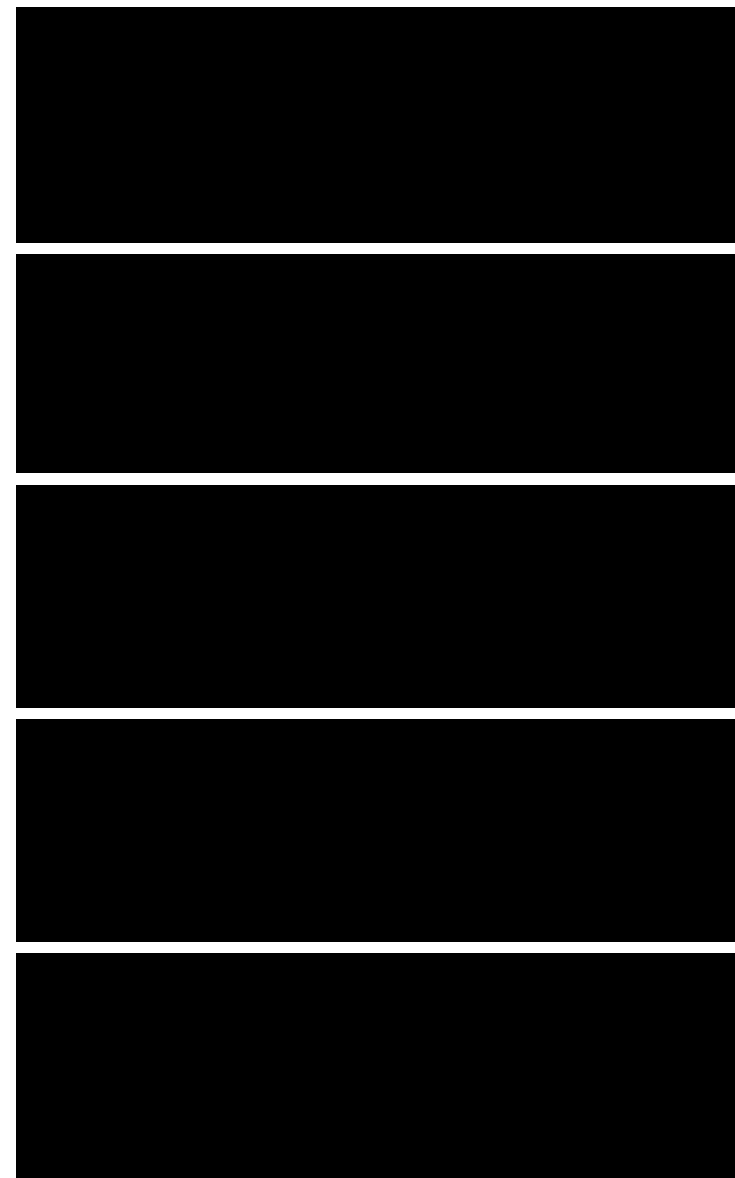
Programme of Assistance to the Fisheries Sector in Mozambique 2009-12

PLAN OF ACTIVITIES AND RESOURCES

Outcome/Activities	Resp.	Years					External factors	
		1	2	3	4	5		
A. CAPACITY OF THE MINISTRY OF FISHERIES STRENGTHENED (Component coordinating body: DNEP)								
1. A Fisheries statistics system created								
/1. Review of the Statistics Master Plan with the aim of decentralised implementation (includes organisation of central statistical department and provincial nuclei)	DNEP						- Staff recruited with the necessary qualifications and on time - Adequate cooperation on the part of agents of the sector	
/2. Formulation of norms and implementation of sector economic statistics	DNEP							
/3. Formulation of norms and implementation of sector human resource (incl. support for the design and holding of a first general census)	DRH							
/4. Establishment of procedures for aggregating sub-sector statistics	DNEP							
/5. Reinforcement of means and procedures for monitoring								
2. Capacity to formulate fisheries policies created								
/1. Formulation of specific policies	DNEP						- Staff recruited with the necessary qualifications and on time	
/2. Short duration training	DNEP							
3. Efforts support to solve conflicts of territory and powers between fishing and other sectors (oil and gas, mines, tourism, marine parks etc)								
/1. Specific studies held	MF						- Receptiveness on the part of the interested sectors in regard to the interests and importance of fishing	
/2. Support for discussions between the fishing sector and other sectors	MF							
4. Implementation of Fisheries Master Plan supported								
/1. Revision of the Fisheries Master Plan	DNEP						- Selection of an appropriate consultant with knowledge of the theme, the region and the international tuna industry	
/2. Monitoring and review activities held	DNEP							
5. Support for establishing a strategy for the gradual inclusion of the offshore tuna fishing economy into the national economy								
/1. Study held	DNEP							
/2. Support for implementation	DNEP							

Budget of outcome 5 in the next page

Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
6. Creation of Fisheries Museum supported /1. Architectural blueprint drawn up, and building work accompanied /2. Construction of the main building /3. Support in organising the museum	FFP FFP FFP						- Receptiveness on the part of the ship-owners - Construction takes place without delays - Funds not covered by the current programme raised to the amount and at the time needed
7. Continuity of actions to raise the technical and scientific qualifications of fisheries staff in general (masters and doctoral degrees) /1. Preparation of a human resources sector plan /2. State scholarships granted annually: 40 licentiates, 3 masters and 2 doctoral: 50 licentiate, 3 masters and 2 doctoral degrees per year /3. Masters course in management of aquatic resources held	DRH DRH/ IIP						- Candidates approved - Sufficient number of candidates
8. Strengthened financial management and procurement capacity in the institutions of the fisheries administration system /1. Training of administration and finance staff	dAF-MF						

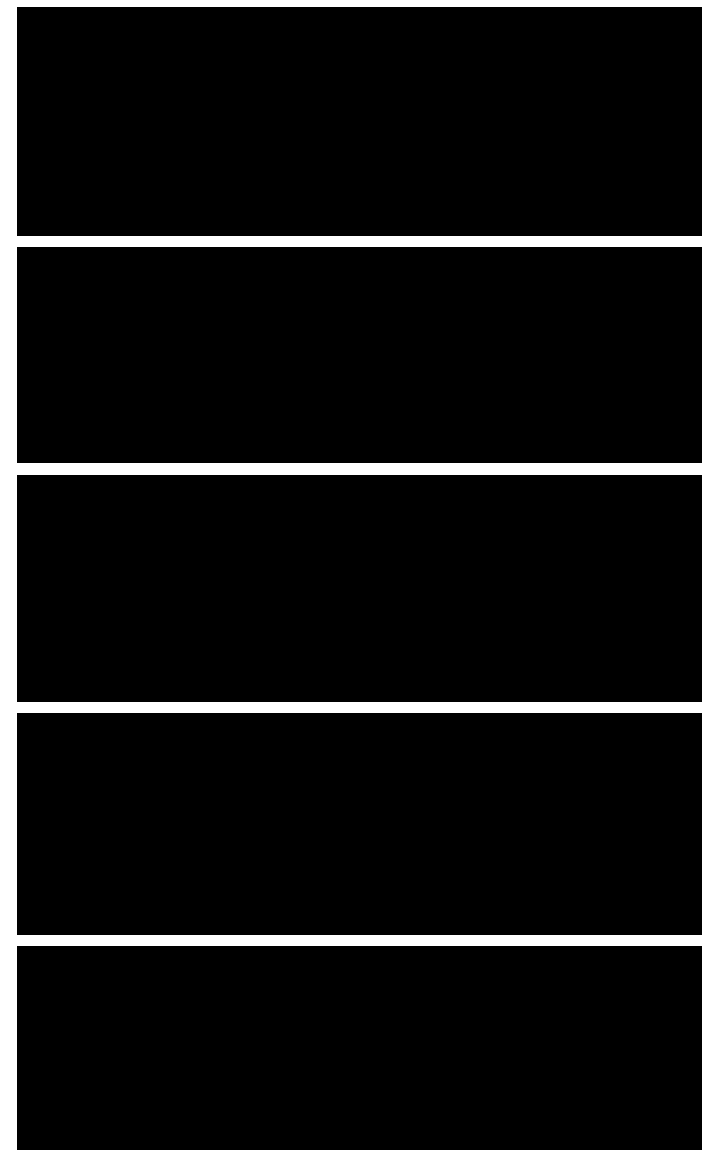


Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
B. FISHERIES MANAGEMENT CAPACITY STRENGTHENED (Component coordinating agency: DNAP)							
B1. FISHERIES RESEARCH (Sub-component implementing agency: IIP)							
1. Assessment of the state of exploitation of economically important fishing resources supported							
/1. Sofala Bank shrimp	IIP						- Funds not covered by the current programme raised to the amount and at the time needed
/2. Deep water shrimp (<i>gamba</i>)	IIP						
/3. Line demersais	IIP						
/4. Kapenta	IIP						
/5. Artisanal fishing resources	IIP						
/6. Short duration training	IIP						
2. Bio-economic assessment of fisheries supported							
/1. Sofala Bank shrimp	IIP						- Staff recruited with the necessary qualifications and on time
/2. Deep water shrimp (<i>gamba</i>)	IIP						
/3. Line demersals							
/6. Short duration training	IIP						
3. Implementation supported of statistics on catches, efforts, prices of first sale and biological sampling of artisanal fishing							
/1. Creation of an open and permanent data base for all artisanal fishing data supported	IIP						- Funds not covered by the current programme raised to the amount and at the time needed - Staff recruited with the necessary qualifications and on time
/2. Creation of capacity to use the artisanal fishing data base supported to identify relations between artisanal fishing effort and indicators of biological, social and economic performance	IIP						
/3. Initiatives supported to improve artisanal fishing statistics	IIP						
/4. Initiative support to improve fishing statistics	IIP						
/5 Identification of relations between artisanal fishing effort and indicators of biological, social and economic performance	IIP						
/6. Continued training of staff involved in artisanal fishing statistics	IIP						
4. A regular statistical system established on the catch and destination of the shrimp by-catch from the industrial and semi-industrial fleets							
/1. Design of sampling-based system	IIP						- Funds not covered by the current programme raised to the amount and at the time

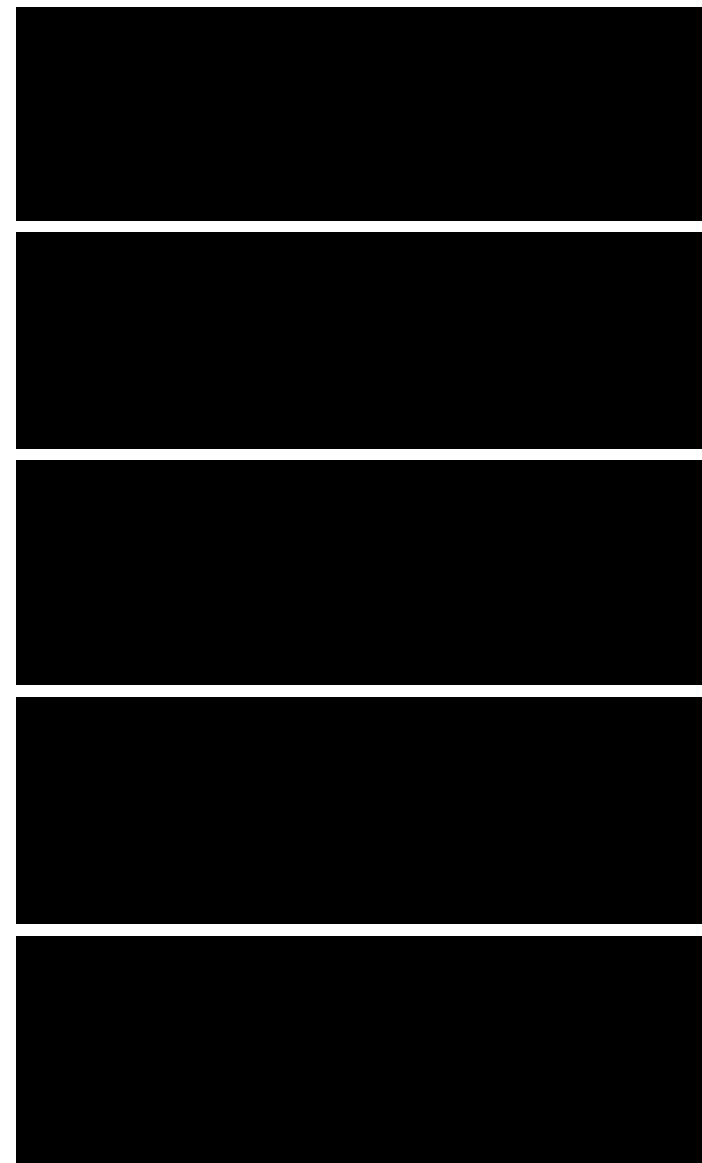
Budget of outcome 5 in the previous page

Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
/2. Support in implementing the system /3. Analysis and presentation of results supported	IIP IIP						<p>needed</p> <ul style="list-style-type: none"> - Staff recruited with the necessary qualifications and on time - Adequate cooperation from sector agents involved - Funds not covered by the current programme raised to the amount and at the time needed - Funds not covered by the current programme raised to the amount and at the time needed
5. Creation supported of a regular monitoring capacity at provincial level of the main artisanal fisheries							
/1. Design of system in coordination with IDPPE	IIP						
/2. Support in implementing the system at level of analysis and issuing management recommendations if necessary	IIP						
6. Research continued into the interaction between environmental parameters, exploitable resources and fishing activities							
/1. Establishment of a data collecting programme to monitor climate change and support in its implementation	IIP						
/2. Establishment of a system to collect, process and analyse environmental data to be included in assessment of the state of exploitation of the main resources	IIP						
7. Cruises supported for general assessment of fishery resources in waters under Mozambican jurisdiction							
/1. Processing and analysis of data in general supported	IIP						
/2. Analysis supported on comparison with previous surveys	IIP						
/3. Formulation of recommendations of relevance for management supported	IIP						
8. Implementation of fisheries research strategy supported							
/1. Assessment of degree of achievement	IIP						
9. Knowledge of state of exploitation of resources and fisheries publicised							
/1. Annual seminars, publications etc. supported	IIP						

Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
B2. FISHERIES ADMINISTRATION <i>(Sub-component implementing body: DNAP)</i>							
1. Efforts supported to adjust the industrial and semi-industrial fishing statistical sub-systems to the sector statistical plan /1. Drafting proposals for adjusting the sub-systems /2. Support in implementing the components	DNAP DNAP						
2. Support for study of the division of management tasks and responsibilities between central, provincial and district levels <i>(incl. participatory management bodies)</i> /1. Study held /2. Support for implementation (including district ceilings on licensing by fishing gear) /3. Training of trainers of agents of the local administration	DNAP DNAP DNAP						- Interlocutors interested and with capacity to intervene at local level - Staff recruited with the necessary qualifications and on time
3. Capacity for implementation and strategic assessment of fisheries management plans supported /1. Sofala Bank shrimp /2. Line demersals /3. Inland fisheries (kapenta, ornamental fishes) /4. Tuna in the Mozambican EEZ	DNAP DNAP DNAP DNAP						
4. Surveillance capacity in the EEZ strengthened /1. Technical advice provided in MCS /2. Maritime patrolling undertaken (reduction of 100-40% in costs of hiring patrol vessel) /3. Updating operational manuals /4. Support to the operation of a new patrol vessel	DNAP DNAP DNAP DNAP						- Funds not covered by the current programme raised to the amount and at the time needed - Stability in the corps of surveillance agents
5. Training of supervision agents continued /1. Fishing inspectors /2. Creation of a corps of fishing investigators	DNAP DNAP						

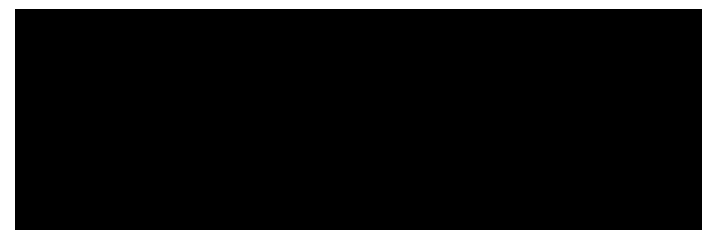


Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
6. Expansion of regional cooperation supported							- Greater priority for regional cooperation in fisheries - Receptiveness on the part of countries of the Indian Ocean region towards the cooperation actions proposed by Mozambique - Interlocutors with the required capacity and availability to operate the data bank at local level
/1. Study held on Mozambican membership of Indian Ocean international Organisations (OIC, IOTC...)	DNAP						
/2. Plan of action drawn up against IUU fishing, including creation of a regional centre headquartered in Mozambique	DNAP						
/3. Organisation of an international meeting on IUU	DNAP						
/4. Support for participation in regional and international initiatives (IOC, IOTC, SADC, CITES, COFI, SWIOF, etc.)	DNAP						
7. MCS data bank and its management improved and expanded							
/1. Gradual extension and accompanying implementation of the integrated database to Cabo Delgado, Nampula, 75ambézia, Sofala and Maputo provinces	DNAP						
/2. Training	DNAP						
8. Possibility analysed of a regional solution for adapting a VMS system in Mozambique							
/1. Study held	DNAP						
/2. Study visit to Seychelles	DNAP						
/3. Support for discussions with possible partners	DNAP						
9. Annual seminars on state of exploitation of aquatic resources and fisheries management supported							
/1. Seminars held	DNAP						
/2. Seminar results publicised	DNAP						



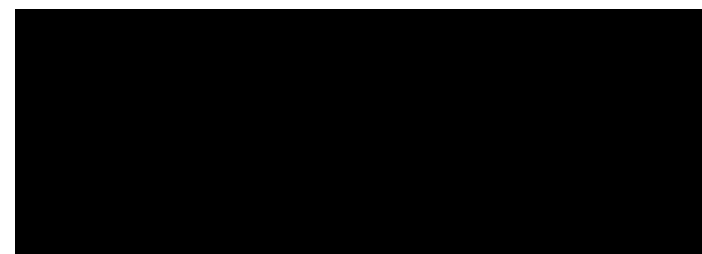
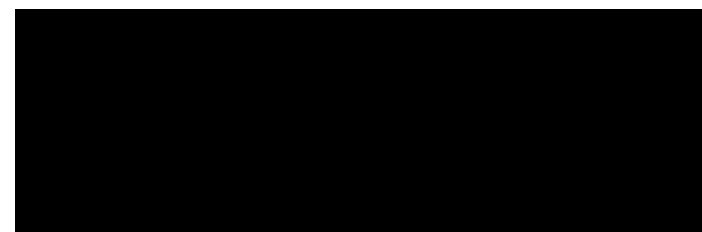
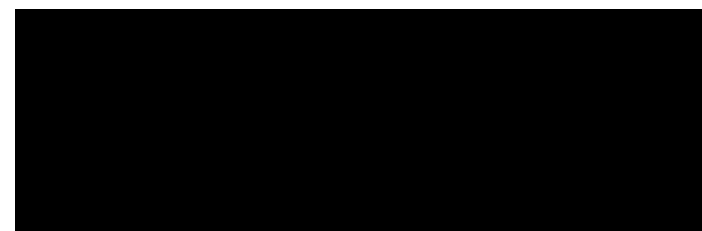
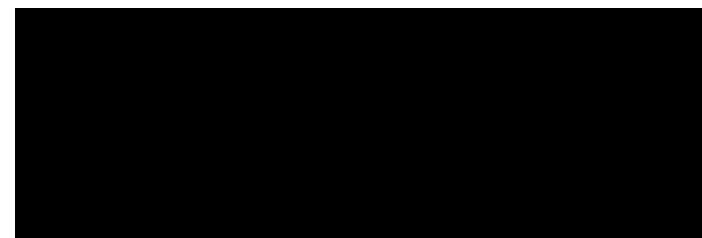
Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
B3. FISH INSPECTION <i>(Sub-component executing agency: INIP)</i>							
1. A long term strategic plan drafted and under implementation providing the necessary procedures and framework so that INIP may function as an autonomous institution							
/1. Hold an institutional analysis to define the organisational and knowledge needs in the technical, human resource and financial departments	INIP						<div>- Receptiveness on the part of the ship-owners and the processing industry</div> <div>- Commitment in general of the institution's staff</div> <div>- Institutional stability</div>
/2. Analysis of the legal framework and public administration procedures to assess the possibility of putting financial procedures in motion (e.g. valuing of services, procurement and use of the institution's revenue)	INIP						
/3. Define a valuation system for the INIP services to ensure their sustainability	INIP						
/4. Study on the possibility of establishing INIP services that generate additional revenue	INIP						
/5. Define a sustainable and reactive mechanism for maintaining, calibrating, operating and replacing laboratory equipment	INIP						
/6. Determine the long term technical assistance needs, including that required in critical periods (e.g. accreditation of laboratories, assessments by the EU)	INIP						
/7. Establish conditions for assessment by an external body of the practices adopted by INIP	INIP						
/8. Establish a financial system compatible with the procedures established by the government that ensure efficient procurement and management in INIP	INIP						
/9. Hold a survey to determine the training needs at the INIP central services and delegations	INIP						
/10. Identify and propose linkages with other Mozambican institutions able to provide training and other services (e.g. EP, UEM, ISAP, private companies)	INIP						
2. The resources of INIP developed so as to provide more efficient and sustainable services							
/1. Introduction of the use of a data base on licensing and certification in liaison with the laboratories for purposes of certification	INIP						<div>- Receptiveness on the part of the ship-owners and the processing industry</div>
/2. Establish the data base in a network between the centre and the	INIP						

Comp. B3 - Inspeção de Pescado - Subtotal							em 1000 USD
Total	1	2	3	4	5		
Studies and consultancies	475,0	50,0	130,0	145,0	100,0	50,0	
Training	450,0	20,0	100,0	100,0	120,0	110,0	
Equipment	175,0	20,0	70,0	40,0	30,0	15,0	
Construction	0,0	0,0	0,0	0,0	0,0	0,0	
Funds for credit	0,0	0,0	0,0	0,0	0,0	0,0	
Other	0,0	0,0	0,0	0,0	0,0	0,0	
Total	1.100,0	90,0	300,0	285,0	250,0	175,0	

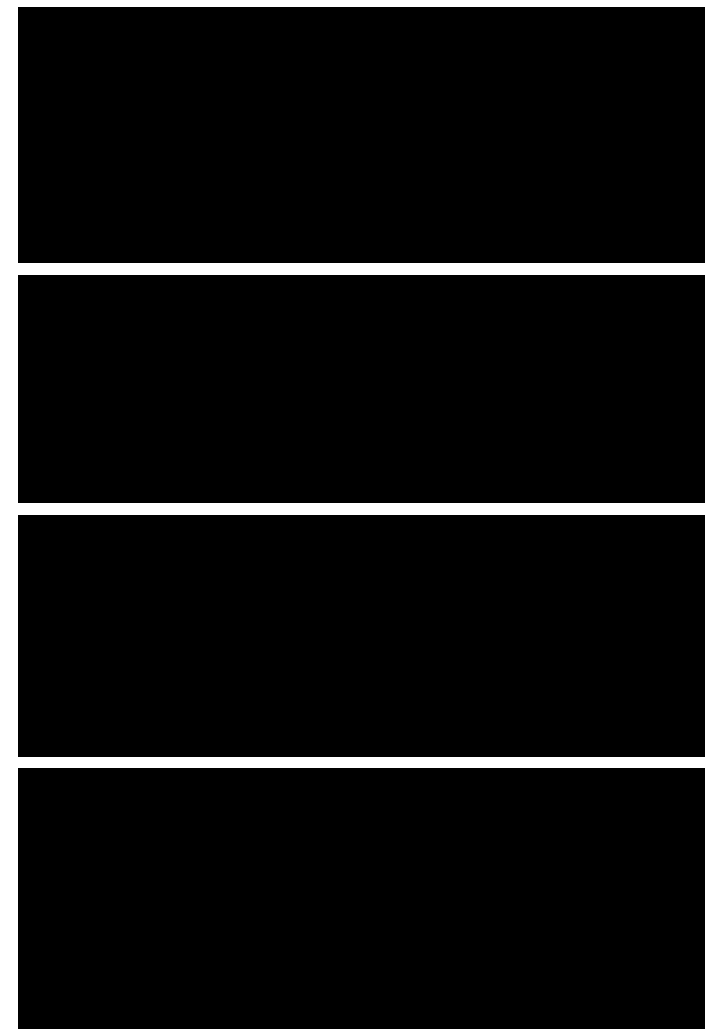


Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
delegations of INIP							- Commitment in general of the institution's staff - Institutional stability
/3. Update the operating manuals concerning laboratory procedures and services	INIP						
/4. Draw up manuals concerning the maintenance and calibration of equipment	INIP						
/5. Prepare procedures and the respective software package for application in the financial management of INIP	INIP						
/6. Assistance in operating the data base	INIP						
/7. Improvement in laboratory conditions	INIP						
/8. Establishment of a long term budget compatible with the procedures of the Mozambican public administration	INIP						
/9. Introduce a stock control system	INIP						
/10. Introduce a sulphite testing system to be used by the industry in order to meet the requirements of the EU	INIP						
3. Capacities developed in the management of human resources, financial management, inspection and laboratory services, based on a training strategy							
/1. Promoting and training of INIP staff in accordance with the needs identified in the strategic plan	INIP						
/2. Training of laboratory staff in procedures and applications	INIP						
/3. Training of laboratory staff in maintaining and calibrating equipment.	INIP						
/4. Training in operating and maintaining the data base	INIP						
/5. Improved capacity of staff in the computer department	INIP						
/6. Training in financial and procurement procedures	INIP						
/7. Regular assessment of the results of training in the various sectors of INIP, and holding of refresher courses	INIP						
/8. Training of leading staff at central level and of the delegations in administration	INIP						
/9. Training of staff of the financial services in the new or current financial system in order to drive the financial process	INIP						
/10. Hold short courses in the new procedures and legislation	INIP						
/11. On-the-job training in planning and long term budgetary forecasts	INIP						
/12. Training of key INIP staff in English	INIP						
/13. Further training derived from new developments/projects	INIP						

Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
C. PROMOTION SUPPORTED OF DEVELOPING THE PRODUCTION OF FISHERIES PRODUCE FOR CONSUMPTION BY THE PUBLIC (Component coordinating body: IDPPE)							
C1. ARTISANAL FISHING (Sub-component implementing body: IDPPE)							
1. Creation of artisanal fishing statistical sub-system supported /1. Proposal for sub-system drafted	IDPPE						- Staff recruited with the necessary qualifications and on time
/2. Drafting of technical norms for the main components of the sub-system	IDPPE						
/3. Support in implementing the components	IDPPE						
2. Capacity of the IDPPE computer department strengthened /1. Drafting the organisation project	IDPPE						- Funds not covered by the current programme raised to the amount and at the time needed - Staff recruited with the necessary qualifications and on time - Receptiveness on the part of potentially interested parties towards activities to use the shrimp by-catch and the fishing of fish for domestic supplies
/2. Improving the installations	IDPPE						
/3. Equipping the computer unit	IDPPE						
/4. Training statistical and computer staff	IDPPE						
3. Use of the shrimp by-catch supported /1. Incentives granted linked with loans to build commercial artisanal boats for collection of by-catch (preferential interest rates)	IDPPE						
/2. Incentives granted linked with loans to build commercial artisanal boats to catch fish in the Sofala Bank (preferential interest rates) through micro-credit institutions	IDPPE						
/3. Negotiations supported with shrimp trawling industrial ship-owners to create more favourable conditions for use of the by-catch	IDPPE						
/4. Experiment with alternative techniques for transferring, transport, processing and sale of the by-catch	IDPPE						
4. Catch of fisheries produce for domestic consumption promoted through alternative artisanal fishing methods /1. Experimentation and support in divulging techniques of trawling for pelagic fish within 3 nautical miles of the coast, in the Sofala Bank (species caught with shrimp)	IDPPE						- Receptiveness on the part of potentially interested parties towards the fishing activities in question
/2. Experimentation and support in divulging techniques for catching tuna	IDPPE						

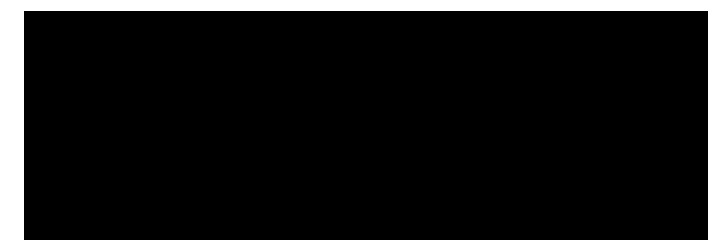
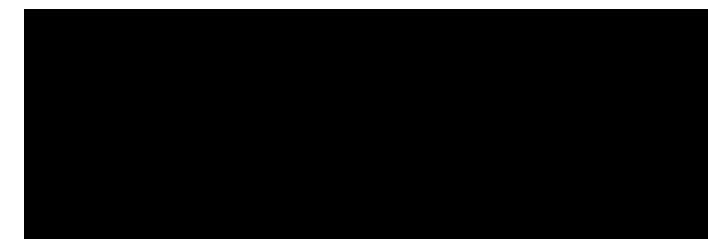


Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
(FADs, drift and rod and live bait), particularly on the northern and southern coasts)							
5. The value added to fisheries produce from inland waters promoted							- Receptiveness on the part of potentially interested parties
/1. Pilot units for cold storage and ice production in inland waters in areas with power supply set up (Massingir and other reservoirs and inland lakes)	IDPPE						
/2. Preparation of training means (text and audiovisual material)	IDPPE						
/3. Training on cold store and ice equipment operation, maintenance and fish processing	IDPPE						
/4. Follow-up of the pilot units function	IDPPE						
6. Technical conditions of artisanal fishing boats improved in Cabo Delgado (Palma, M. Praia ou Macomia), Nampula (Memba, Mongincual e Moma),Zambézia (Pebane, Maganja da Costa e Chinde), Sofala (Beira, Búzi e Machanga) e Inhambane (Govuro, Inhassoro, Vilanculo)							
/1. Technical and organisational training of naval carpenters	IDPPE						
/2. Improvement of the performance of traditional artisanal boats (hull, sailing)	IDPPE						
/3. Support to the introduction of mixed propulsion and engine	IDPPE						
/4. Training of fishermen in the use of navigation and fish detection equipments (sound, GPS, radio)	IDPPE						
/5. Training of fishermen in the maintenance and repairing of engines	IDPPE						
7. Artisanal fishing methods and gear improved in Cabo Delgado (Palma, M. Praia ou Macomia), Nampula (Memba, Mongincual e Moma), Zambézia (Pebane, Maganja da Costa e Chinde), Sofala (Beira, Búzi e Machanga) e Inhambane (Govuro, Inhassoro e Vilanculo)							
/1. Improvement of the selectivity of the commercial artisanal fishing gear	IDPPE						
/2. Survey of open sea fishing areas for commercial artisanal fishing	IDPPE						
/3. Technical and organisational training of fishermen	IDPPE						
/4. Support to the strengthening and expansion of the fishing gear commercial network	IDPPE						

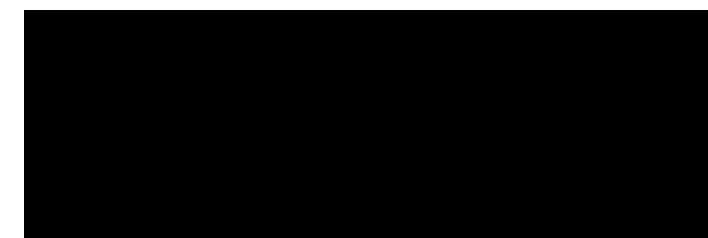


Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
8. Artisanal processing methods and trading fisheries produce trade improved in Cabo Delgado (Palma, M. Praia ou Macomia), Nampula (Memba, Mongincual e Moma), Zambézia (Pebane, Maganja da Costa e Chinde), Sofala (Beira, Búzi e e Machanga), Inhambane (Govuro, Inhassoro e Vilanculo) e Maputo (Marracuene e baía de Maputo)							
/1. Dissemination of improved traditional methods of fresh fish processing and conservation	IDPPE						
/2. Dissemination of manipulation, processing and conservation of fish	IDPPE						
/3. Support to the creation of ice making and use of fish isothermal boxes	IDPPE						
9. Storage and trading conditions of fisheries produce improved in Cabo Delgado (Palma, M. Praia ou Macomia), Nampula (Memba, Mongincual e Moma), Zambézia (Pebane, M. da Costa e Chinde), Sofala (Beira, Búzi e Machanga) e Inhambane (Govuro, Inhassoro e Vilanculo)							
/1. Support to the creation of stores dedicated to salt/dry fish	IDPPE						
/2. Construction of fish first sale markets	IDPPE						
/3. Rehabilitation and construction of fisheries produce retail markets	IDPPE						
/4. Support to the creation of cold stores dedicated in fishing centres	IDPPE						
10. The extensionist network expanded							
/1. Creation of fisheries extension centres	IDPPE						
/2. Training of technical staff from the extension centres	IDPPE						
C2. AQUACULTURE (Sub-component implementing agency: INAQUA)							
1. Preparation of draft complementary regulations for aquaculture supported							
/1. Norms on animal diseases and discharges of infected specimens in aquaculture	INAQUA						
/2. Norms on treatment and discharge of effluent in aquaculture	INAQUA						
/3. Norms on use of chemicals, feed and veterinary medicines in aquaculture undertakings	INAQUA						
/4. National plan to prevent risks and diseases	INAQUA						
/5. Framework regulations for commercial fish farming operations	INAQUA						

Budget of subcomponent C8 in the previous page



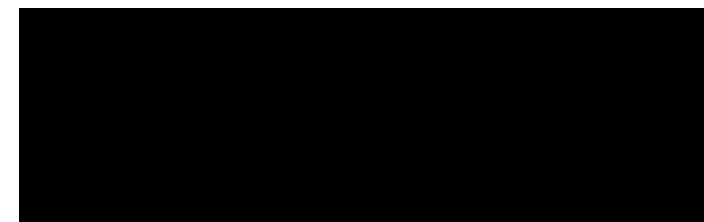
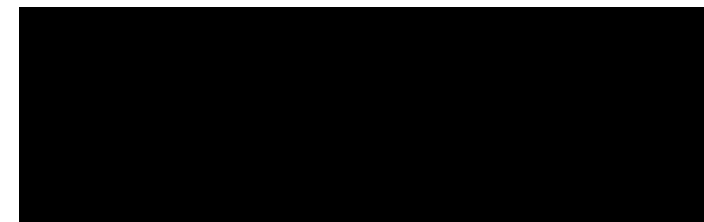
Comp. C1 - Artisanal fisheries - Subtotal		em 1000 USD					
	Total	1	2	3	4	5	
Studies and consultancies	132,5	0,0	106,5	19,0	7,0	0,0	
Training	1.431,5	0,0	447,5	446,0	343,0	195,0	
Equipment	230,0	0,0	60,0	110,0	60,0	0,0	
Construction	546,0	0,0	116,0	160,0	165,0	105,0	
Funds for credit	1.010,0	0,0	255,0	290,0	280,0	185,0	
Other	100,0	0,0	0,0	50,0	50,0	0,0	
Total	3.450,0	0,0	985,0	1.075,0	905,0	485,0	



Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
2. An aquaculture statistical system designed and implemented /1. Proposal drawn up /2. Support in implementation	INAQUA INAQUA						<ul style="list-style-type: none">- Staff recruited with the necessary qualifications and on time- Funds not covered by the current programme raised to the amount and at the time needed- No delays in selecting the designer and builder- No delays in construction- Staff recruited with the between the Ministries of Fisheries and Agriculture in the area of fish farming- Receptiveness on the part of potentially interested parties
3. The Chokwe aquaculture training station recovered and the take-off of its operations supported /1. Studies and projects /2. Rehabilitation of installations /3. Rehabilitation of the tanks /4. Training of trainers /5. Training of extensionists and small producers	INAQUA INAQUA INAQUA INAQUA INAQUA						
4. INAQUA delegations supported in the 4 priority provinces (Niassa, Zambezia, Tete and Manica) /1. Support in equipping the delegations /2. Activities to promote fish farming locally	INAQUA INAQUA						
5. Development of the institutional capacity for a sustainable aquaculture in Mozambique (going-on ICEIDA project)	INAQUA						
C3. TRAINING BY THE FISHERIES SCHOOL <i>(Sub-component implementing body: EP)</i>							
1. A re-assessment of the EP's role in the sector undertaken /1. Preparation of the study /2. Preparation of new educational/training curricula	DRH/EP						
NB: The following outcomes and activities are depending on the conclusions of the study							

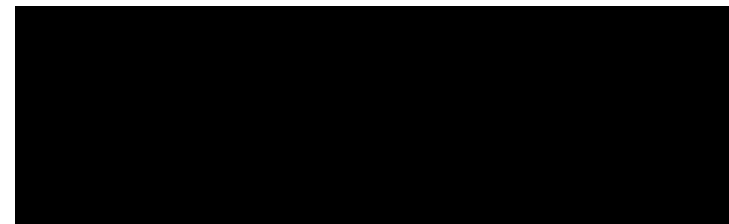
Subtotal of Subcomponent C2 in the next page

Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
1. Conditions prepared for holding mobile courses in Hygiene and Sanitation, HACCP and Trceability for people in fisheries produce, aquaculture, handling and processing (aimed at ship owners and processing companies, extensionists and artisanal fishermen and small scale aquaculture producers) /1. Study held to identify the target groups for the various courses, definition of the respective programmes, requirements for teaching resources and their allocation to the courses, companies and trainees, and definition of a strategy with horizons of 2 and 5-7 years /2. Preparation of educational materials (manuals, power points, posters, etc.)	EP						
	EP						
2. Courses held on hygiene and health of fisheries produce in fishing and processing companies /1. "Classic" courses for managers, , processing staff, quality controllers and extensionists (duration of 5-6 days, 3 courses a year) /2. "Express" courses for extensionists and commercial artisanal fishermen (duration 2-3 days, 6 courses a year, making use of trips of the monitors) /3. "Basic" courses for artisanal fishermen (duration 1-2 days, 6 courses a year, making use of trips of the monitors an extensionists already trained)	EP						- Commitment in general of the institution's staff - Institutional stability - Receptiveness on the part of the ship-owners and the processing industry - Adequate coordination with INIP
	EP						
	EP						
3. Courses held on preserving quality of the various products of artisanal fishing in the post-catch phases /1. "Express" courses for extensionists and commercial artisanal fishermen (duration 2-3 days, 6 courses a year, making use of trips of the monitors) /2. "Basic" courses for artisanal fishermen (duration 1-2 days, 6 courses a year, making use of trips of the monitors an extensionists already trained)	EP						- Commitment in general of the institution's staff - Institutional stability - Receptiveness on the part of the ship-owners and the processing industry - Adequate coordination with INIP
	EP						
4. Courses held on care to be taken in small scale aquaculture (aimed at extensionists and small scale fish farmers) /1. Course for extensionists and small scale fish farmers (duration of 5-6 days, 3 courses a year), particularly on parameters to be considered in production (water quality, use of feed and medicines, environmental	EP						- Receptiveness on the part of the fish farmers - Commitment in general of the institution's staff

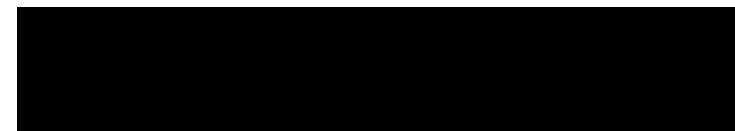


Comp. C - Development promotion - Total							in 1000 USD
	Total	1	2	3	4	5	
Studies and consultancies	878,1	16,5	593,5	202,8	65,4	0,0	
Training	2.707,7	3,5	845,0	890,8	718,0	250,4	
Equipment	995,0	0,0	80,0	717,0	198,0	0,0	
Construction	3.397,0	0,0	494,0	1.433,0	1.365,0	105,0	
Funds for credit	1.210,0	0,0	255,0	390,0	380,0	185,0	
Other	132,2	0,0	13,5	68,7	50,0	0,0	
Total	9.320,0	20,0	2.281,0	3.702,3	2.776,4	540,4	

aspects etc), and health aspects of production to ensure the quality of							- Adequate coordination with
Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
produce and the economic sustainability of the activity etc. /2. "Basic" course for small scale fish farmers with the support of extensionists	EP						INAQUA and the Ministry of Agriculture
D. INSTITUTIONAL CAPACITY SUPPORTED TO DEAL WITH CROSS-CUTTING QUESTIONS (<i>Implementing agency: Ministry of Fisheries</i>)							
D1. Actions to prevent HIV/AIDS supported (<i>Sub-component implementing body: DRH</i>)							- Adequate cooperation from public and private bodies in the sector
/1. Participation in activities under the national prevention plan	DRH						- Interlocutors at local level with the necessary capacity and availability to operate
/2. Participation in national and international events	DRH						
D2. A gender policy supported (<i>Sub-component implementing agency: DRH and Gender Nucleus</i>)							- Receptiveness to include gender questions in all policies, strategies and decisions in the fisheries administration
/1. Study of the situation of women in the fisheries sector	DRH						- Receptiveness to gender questions from agents in the sector
/2. Lectures held on gender themes in the fisheries sector	DRH						- Receptiveness to including questions of good governance in all policies, strategies and decisions in the fisheries administration, and in the sector in general
/3. Participation in national and international conferences	DRH						- Receptiveness to including environmental questions in all policies, strategies and decisions in the fisheries administration, and in the sector in general
D3. Practices of good governance supported (<i>Sub-component implementing body: General Inspectorate</i>)	IG-MF						
D4. Cooperation actions in the environmental area supported (<i>Sub-component implementing agency: DNAP</i>)	DNAP						



Outcome/Activities	Resp.	Years					External factors
		1	2	3	4	5	
PROGRAMME MANAGEMENT (Programme Implementation Coordinating Unit)							
/1. Current management (manager and miscellaneous)	MF						
/2. Improvement of indicators	MF						
/3. Monitoring meetings	MF						
/4. Programme mid-term review/evaluation	MF						



Appendix 4

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